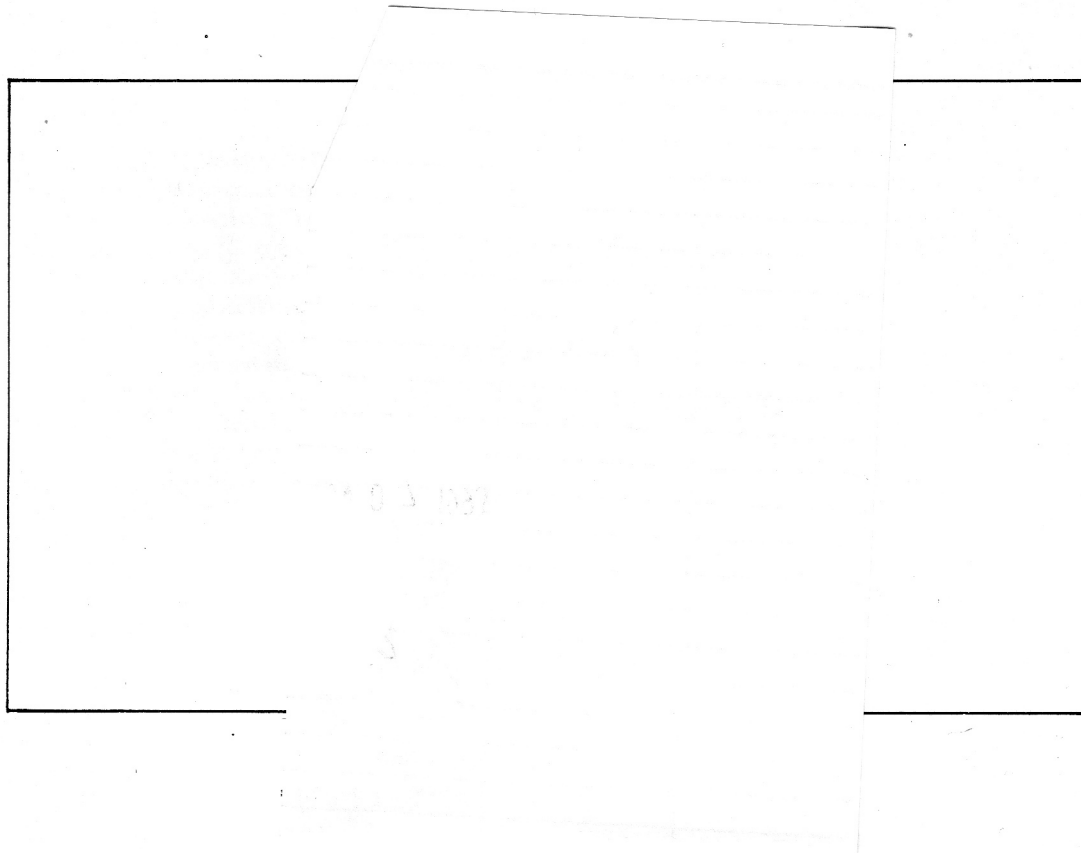


A Datapro Report

**All About
Word Processors**





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by the editors of
Datapro Reports on Word Processing

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Word Processing Systems

While the shape of the word processing equipment market has undergone dramatic change over the past several years, word processing as an application, and the commensurate concerns with functionality, has not. The application has evolved through implementation on dedicated word processing equipment to implementation on mainframe and minicomputers to bundled packages designed to run under portable operating systems on microcomputers; however, this evolution has neither detracted from nor changed the original requirements or need for the capability to process large quantities of text rapidly, in many different ways. The current players in the word processing market are vendors from the computer manufacturing community as well as those with origins in the dedicated word processor market. The appearance of the former in the market was sparked by the move to integrate traditional office functions, i.e., text processing, into the larger data processing environment. The outgrowth of this move was to aim at the integration of all communicating office equipment into a total office automation system and, at this point, that is where the market is today. Though this report will touch on some aspects of this overall automation goal, the subject will remain word processing and its current place in the marketplace.

Since monks sat in abbeys laboriously copying manuscripts with quill pens and even more laboriously illustrating them, mankind has ever searched for easier and faster methods to create and then reproduce the written word. As with all other technologies, the means for processing text progressed from an early, rudimentary form—the mechanical typewriter—to developing systems—machines which could repetitively type form letters and contracts using a punched paper roller storage mechanism similar to those found on the player pianos. These machines were enhanced with addition of punched paper tape as a storage medium



The new Prototype Display Typewriter

The concept of a word processor as a specific piece of hardware dedicated to the processing of words (or text) is becoming obsolete. The term word processor may now be applied to any piece of equipment that processes words, whether or not this constitutes its chief application. The piece of equipment may also be part of an office automation system or it may be operated relatively independently. If we consider the definition of a "system" as a unification of interdependent office devices, then it is easy to see why a definition of the *automated office* is so elusive. The key words are *may also*. Classes of equipment now fall into standalone word processors, multiterminal word processors, and integrated office systems which include mainframe, mini- and microcomputer systems. This report and the accompanying tables detail the features, parameters, and pricing of word processing equipment which is offered by companies who are primarily dedicated to providing word processing systems. For information on other types of word processing systems, see Reports WP10-010-101 for Electronic Typewriters, WP13-010-101 for Executive & Professional Workstations, and WP15-010-101 for Integrated Office Systems.

and, with the addition of electromechanical machine logic, given the ability to be used for applications requiring not only repetitive tasks but also searching, selecting, and merging text stored on the tape.

The emergence of the electronics industry led to the developments that enable the replacement of cumbersome vacuum tubes, relays, and paper tape in processing systems leading to IBM's introduction of the early mag card and tape systems of the early 1960s. The popularity of these systems with their reusable, page recording, magnetic card storage medium, and higher speed magnetic tape, ushered in a new era form creating and reproducing the written word which led to wide acceptance. The rest is history. From such development was born the sophisticated word processors that are modular in design, display up to a page of text on a CRT, are software based for flexibility in configuring system capability, and provide high-speed letter quality printout in a variety of type sizes and fonts as well as having a typeset appearance with justified margins. High density magnetic diskettes and disks are now common devices for the storage of large quantities of text which can be revised any number of times, reformatted in any desired way, combined with graphics stored on the same system, or integrated with statistical information calculated under another software program.

In fact, it could be said that in the mid-1970s, the word processing market matured—both hardware and software. ➤

Word Processing Systems

➤ Over the last several years, vendors have now concentrated their development efforts on software and integration products. Derivatives of CP/M and similar diskette loadable operating systems have provided even the low cost text processing systems with data processing capability and the means to support a vast array of third-party applications software packages. Such vendor-generated products as spelling verification, electronic mail, IBM 3270 terminal emulation, and—most recently—chart and graph drawing options have demonstrated that software has become the primary arena of competition in the word processing marketplace. The direction of this market competition is toward integration, and the majority of new hardware products have tended to be communications related: equipment interfaces, cluster controllers, and network devices. The pursuit of integration has thus served to blur the line between word processors and general purpose microcomputers, as well as the line between word processing vendors and micro vendors. Most recent announcements from both vendor communities have been in the area of the professional and executive workstation leading to the belief that word processing is taking a back seat in R&D funding. It is ironic that the most emphasis is being placed on word processing by the electronic typewriter vendors, a community which has seen many new product introductions from established vendors as well as new vendors and products entering the market. More recently, high-level electronic typewriters have been introduced that approach low-end word processors in a functional form not dissimilar from a microcomputer.

Over 60 firms are now involved in the direct, and more recently, dealer and retail outlet marketing of word processing equipment in the U.S. with new vendors entering the marketplace on a regular basis. New vendors in some cases are replacing vendors who have abandoned the market and in others filling a void in the range of products available. The many word processing products sold can be classed into three increasingly broad categories—standalone and multiterminal word processing systems and integrated office systems. Integrated office systems are covered in Report WP15-010-101. Though briefly addressing other types of word processing equipment/software, the emphasis of this report and the accompanying tables is on the first two categories.

STANDALONE WORD PROCESSORS

A classic standalone word processor consists of a single station configuration which contains its own control logic. Within this classification are two specific types of standalone systems:

- **Electronic Typewriters**—These devices may best be described as the electronic equivalent of the electro mechanical typewriter. The electronic typewriter was introduced in 1978 by Qyx, which was later absorbed into Exxon Office Systems, and broke ground for a virtual onslaught of new products both from established typewriter vendors and those who decided to adapt their expertise in other product areas, i.e., impact printers, to develop new products in this area. Qyx, however, set the

scene for varying levels of typewriters which later became upgradable from one product to another. Today, the addition of external magnetic media storage and CRTs have brought the electronic typewriter to the level of a stripped down word processor.

- **Standalone Display-Based Systems**—The Standalone Display word processor category represents one of the most active sectors of the word processing marketplace. This type of word processor replaces the keyboard/printer with a keyboard and video display (partial- or full-page) terminal plus single or dual media drives (usually diskette) and a separate printer. With this type of word processing configuration, text is keyed, edited, and changed on the display before printout. The display-based word processing workstation may be used to perform a number of integrated functions such as data processing, electronic mail, administrative support, and personal computing. Standalone display-based word processors are priced from as little as \$5,000 to over \$20,000—the higher-priced exceptions sometimes offering data processing and other capabilities, as well as word processing.

Formerly included in the above list but no longer manufactured or marketed are the magnetic card typewriter and the “thin window” display typewriter. Both kinds of systems are still widely used and may be purchased from dealers in reconditioned and remanufactured word processing equipment.

Video standalone word processors have internal or buffer memory systems capable of holding in excess of a display page of text. Such extra capacity allows lines to be scrolled through the display for edit, update and revision, and allows the addition of new text to a document file. Text is either called up into memory from files stored on magnetic media (usually diskette), or directly keyed.

Buffers aside, dual media station (e.g., dual diskette) word processors have more flexibility than their single media counterparts. Card-to-card, tape-to-tape or disk-to-disk operations are possible. New or revised text can be keyed and merged with existing files, printed and then stored. Address lists and special inserts can be combined with boilerplate on an automatic basis to generate “customized” form letters; new additions to such address lists may also be collated into a master card, tape, etc. Such tasks on single media word processors are performed in a less automatic manner, and usually require more direct operator intervention.

Optional peripherals offered for standalone word processors usually include communications, paper feed devices, OCR, high speed printer capabilities, and hard disk storage.

MULTITERMINAL WORD PROCESSORS

A multiterminal word processing system, as the title suggests, is a word processing system configuration which incorporates more than one workstation, where these stations share one or more particular resource, which may be

Word Processing Systems



CPT Phoenix System

▷ program or file storage. Included in this broad category of equipment are shared-logic and shared-resource systems. Multiterminal word processing systems are suited to large environments where it may be desirable to share work files among many operators, and share peripheral devices among workstations, thereby maximizing the potential of these devices.

- **Shared-Logic Systems**—Shared-logic multiterminal word processing systems are quite similar in concept to time-shared or key-to-disk computer systems common in the EDP industry. Such systems share the logic, storage and peripherals of a central computer among a number of keyboard/editing stations.

Typically, a maximum of 12 stations may be supported by the processing power of a central minicomputer, although some shared-logic configurations may support up to 35 or more stations. High-speed printers (line, belt, matrix, electrostatic, etc.) are often employed by such systems, especially where a first draft copy is required on an "instant" basis. Otherwise, printout is typically performed on one or more daisywheel printers. Operator input and editing is usually performed on video display terminals. Other peripherals include OCR input; disk cartridge or pack storage; computer-compatible magnetic tape storage; mark or punched card readers; communications; photocomposition interfaces or punched paper tape output; and any other of the many devices that may be attached to a computer-controlled system.

Shared-logic systems not only share the logic but also share the cost of the system among a number of keyboard stations. Word processing power that might be cost-prohibitive on a single keyboard standalone system can

be attractive when spread over a number of stations. Thus, shared-logic systems can provide greater control logic and edit capabilities, and larger on-line memory and storage capacities. Text can be stored, searched and retrieved as multipage documents, maintaining page format and pagination throughout a number of updates and revisions. A number of word processing tasks may be performed almost simultaneously on a number of operator stations. Printout, as well as other functions such as records processing and communications, can be performed as a background operation as other text is being edited or keyed in. Though once an uncommon feature on standalone word processors, the function of dual tasking has migrated downward to most standalone units.

An intermediate "cluster" type of shared-logic word processor is available for users who find the shared-logic concept attractive but presently lack the volume to justify the purchase of a large shared-logic system. Cluster systems are somewhat less expensive, but offer most of the text editing features inherent in a full-blown shared-logic system. The main limitations are the ultimate number of stations supported (usually four to six per cluster), and on-line storage capacities. The system is thus viable for users who require fewer stations on an initial or even ultimate installation basis. Clusters may even appeal to a high volume user who may wish to disperse tasks among a number of clusters rather than place them all on a single system. A system malfunction in this instance would not idle the entire word processing facility; only one cluster would be disabled rather than the entire shared-logic system.

- **Shared-Resource Systems**—The shared-resource word processing system is another type of multiterminal word processor configuration. Shared-resource systems encompass a broad range of configurations, but have one thing in common: each workstation within a shared-resource system contains its own intelligence and processing power and may have its own local storage device as well as being able to share the storage of the system master. Outwardly much like a shared-logic system, shared-resource word processors, since intelligence is dispersed to the operator stations and sometimes the shared peripherals, offer greater integrity than their shared-logic counterparts. A malfunction of one particular station would not shut down the entire system. The shared-resource concept had its beginnings in the mid-to-late 1970s, when standalone word processor manufacturers joined the cluster bandwagon by sharing a printer among two or more workstations as a simple means of enhancing their own word processors. This concept has grown in popularity, and now a number of standalone vendors are offering not only shared printer options, but shared disk file and other shared peripherals. Such shared configurations offer the standalone user a means of modular, upward expansion, and offer the standalone vendor a means of competing in the more lucrative shared-logic market.



Word Processing Systems

- ▷ On first appearance, the cost of a multiterminal, word processing system might seem high. The true cost, however, must be measured on a per-station basis and on the processing power extended to each station by the system. Price tags range from under \$25,000 to over \$150,000, but the per-station cost is usually in the \$10,000 to \$20,000 range—similar to the cost of a standalone video word processor with which the multiterminal system usually competes.

OTHER TYPES OF WORD PROCESSING

The availability of time-shared word processing services from a number of vendors provides an alternative to (or a backup for) internal user-owned equipment. Computer terminals or communicating word processors at the user site are employed to access the word processing power of a remote computer system via the telephone network. By sharing such power amongst a number of users, the time-shared service vendor can provide sophisticated functions at modest costs. Report WP31-050-101 covers such services in more detail.

An alternative that may be of interest to low volume operations is the use of personal computers configured with third party wp software (e.g., WordStar, Magic Window, Easywriter). While such packages may not be as fully featured or as easy to operate as dedicated word processors, they can provide low-cost functionality that is more than adequate for occasional correspondence and reports. This market is expanding and, with the advent of such products as NBI Word Processing for IBM personal computers, may eventually become competitive with low-end dedicated wp systems. Report WP35-010-101 details many of the packages available for mainframes and minicomputers as well as microcomputers.

GENERAL FEATURES

Word processing systems are able to produce printed output at speeds from 100 to 540 words per minute on quality impact printers to 36 to 120 pages per minute on electrostatic devices. In time-shared or shared-logic systems, a separate high speed line printer is often located in a central area and used for high volume work (direct mail labels, envelopes, form letters) at speeds often exceeding 20,000 wpm.

Depending upon the particular system, more than a dozen knobs, control buttons, switches and/or signal lights will be found on the basic keyboard console in addition to secondary edit functions piggy-backed onto many of the traditional typewriter keys. The typical word processing system can be operated by existing secretarial personnel after training sessions ranging in length from several hours to several days.

While it is true that word processors are often more efficient when operated by personnel who are machine-oriented rather than people-oriented, the most sophisticated equipment (in terms of features and functions) is often the easiest to operate and the fastest to learn. This seeming

incongruity is explained by the tutorial devices included in many of the more sophisticated systems. Often, the operator need memorize only a few key commands initially, with the system providing cues as to how to proceed and "menus," listing the options available at any point in the editing process. Other equipment manufacturers, mindful of the high costs of individualized training, have collaborated with training film vendors to produce self-training programs which the user may buy to train operators. Many companies find such programs attractive for the further training of new operators replacing those lost through attrition, promotion, or for other reasons. Though, seemingly, the initial investment appears to be high, compared to the cost of having vendors constantly retraining new operators, the cost becomes more attractive.

Viewing or display screens have significantly improved the text editing I/O word processing cycle. Partial- and full-page displays allow each page to be scanned in its entirety before storing or printing. Thus, the operator has control over complete page balance and appearance as well as the ability to enter or delete text (character, word, line, paragraph, page) at will. In general, a considerable degree of intelligence is needed to support the full-page display capabilities of line roll up/down (scrolling), insertions/deletions within the middle of sentences, etc. In fact, the only disadvantage of display-oriented systems (assuming that their higher cost is turned to good advantage through increased productivity) is that some of the systems can lose up to a full-page during editing if a power failure is experienced before the page is stored.

By establishing separate job positions for correspondence and administrative secretarial personnel, improvements in efficiency through functional specialization can be achieved. A standard method of achieving this specialization has come to be the company-wide dissolution of the private secretary position in favor of a centralized word processing center plus one or more administrative support positions in locations near executive personnel requiring such service.

It should be noted that the concept of a word processing center need not involve a large number of secretarial personnel, but merely functional centralization. It is reasonable for a small office or for decentralized departmental areas within a large company to have a word processing center consisting of one or two persons. Thus, wholesale restructuring of an entire company's secretarial support with elimination of all personal secretaries is not necessarily required in order to initiate efficient word processing operations.

Beside the notion of dividing duties to conquer the workload, word processing also emphasizes the concept of professional supervision. Even without the use of automated equipment, having secretaries report to a single supervisor, whose main concern is efficient handling of the total secretarial workload, will have positive effects on productivity. When combined with the increased productivity attributed to the technology of automation, such increases can have a significant effect on the firm's cost saving efforts.

Word Processing Systems

➤ Another aspect of functional centralization into word processing centers is that the secretary, upon being freed from a direct employee-supervisor relationship with a particular principal, is now viewed as a professional and can compete directly with others for advancement without compensation and status being linked to that of a particular boss.

While a word processing center can operate to make the traditional office environment somewhat less personal, a key difference should be observed between word processing centers and the rather more old-fashioned secretarial pools. While the secretaries in a pool report to a single supervisor and are physically centralized as are personnel in word processing centers, each member's functions in a pool can continue to be general purpose in nature. Their equipment tends to be electric typewriters rather than newer automatic equipment, and when a principal requires dictation or other secretarial services the pool member is likely to leave the pool to work at the principal's location. In word processing centers the personnel will depend upon dictation or messenger services to obtain input material, and physically perform their secretarial typing support activities in the word processing center. Where nontyping administrative functions are required, the appropriate administrative secretaries can be used.

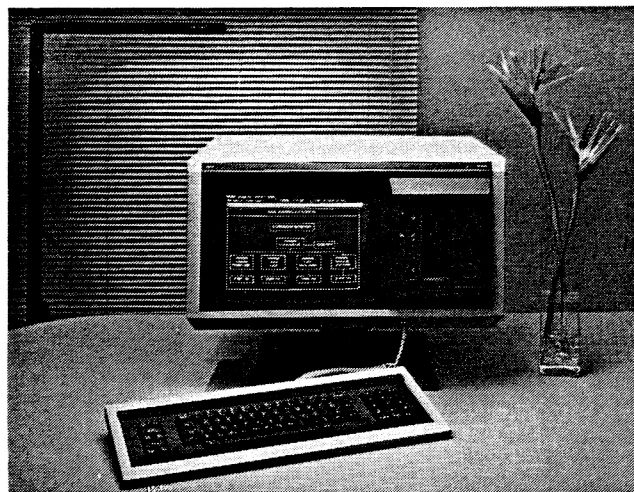
APPLICATIONS

The first and most intensive users of word processing were service-oriented companies, whose paperwork costs were equivalent to a manufacturing organization's production costs. Such paper-intensive organizations include insurance companies, banks, law firms, and administrative government agencies.

The specific applications needs of these industries did much to shape the early development of word processing, and most of the features now offered as standard on typical word processing systems owe their origins to the vigorous vendor competition in this large market. It was also these industries and their diverse workloads of repetitive letters, long documents, and financial reports that caused wp vendors to extend product capabilities into the areas of list processing, column manipulation, math, and statistical applications.

As word processing systems grew more powerful and flexible in response to consumer demand, correspondence gradually ceased to be the primary application for word processing systems. Longer documents including manuals and documentation requiring a mix of statistical and textual typing as well as the filling in of preprinted forms has become the standard usage for the systems. Thus, firms who did not feel that word processing would be a cost-effective alternative have turned to them in a variety of environments, including engineering, manufacturing, retail, and academic organizations.

A large and growing application for word processing systems is records processing. The advent of such capability brought word processors into a new realm. Instead of being employed for just correspondence and text handling work,



Philips 3005 Universal Workstation

word processors with records handling capability are now information processors. From just a letter writing point of view (and the applications for records handling sort/select capability are endless), word processors with records handling capability are able to prepare and route letters to specific, metropolitan areas or sales territories; to prospects with minimum gross sales volumes; to organizations having a certain number of employees; and to other entities based upon specific identifying qualifying criteria. Inquiry retrieval features can allow determination of the number and identity of business prospects for a given area or a given product. Dunning letters can be generated with a single operator command for overdue accounts, carrying an itemized list of unpaid items imbedded in the text of the letter.

Applications currently available on the market include integration of text and data (and sometimes graphics) in a single document, electronic transfer of documents between remote locations and terminals of different manufacture, and electronic intra-office communications that actually serve to reduce the volume of typed in-house correspondence. The paperless office is still a tiny point of light at the end of a very long tunnel, but most new software applications are conceived as steps in that general direction. We may therefore expect that future applications products will be aimed at reducing the need for typing and retyping, not at enhancing existing text manipulation capabilities.

Word processing systems are thus entering an era where they will be assessed as administrative support systems as well as document handlers. When viewed from this perspective, such information processors will be cost-justifiable in a number of new environments, and will be employed innovatively, supporting many administrative tasks such as calendar, tickler files, file indexing, electronic mailbox, list and record maintenance, and so forth.

ADVANTAGES

The main advantages of word processing, as implemented via automatic typing equipment, can be summarized as follows:



Word Processing Systems

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- increased office efficiency resulting in improved secretarial support for all executives and/or word originators;
 - higher quality typed output based upon more advanced equipment;
 - higher utilization of installed office machines;
 - improved human resource utilization with better control and supervision of secretarial personnel through a word processing center; and
 - greater career opportunities for secretaries and clerical personnel.

In particular, improved productivity is obtained by:

- reduced retyping time for error-free hard copy;
- facilitation of document revision/change;
- faster output speeds (from 1 to 120 pages per minute depending upon the output device);
- reduction in amount of proofreading required;
- leveling of peaks and valleys in an otherwise unpredictable workload when dictation equipment is used; and
- elimination of the retyping step for photocomposition input (when required).

As a consequence of these benefits, it has generally been found that a considerable cost savings is possible. Secretarial/clerical payrolls are reduced through gradual attrition even though remaining personnel will be paid somewhat more based upon their higher productivity.

For example, a secretary spending most of the day typing with an electric typewriter can produce about 50,000 lines of typing per year. A correspondence secretary using an automatic typing system can produce 150,000 or more lines per year. Industry estimates and recent studies showing four-fold increases in output productivity are not unusual; improvements of up to five times greater typing productivity per secretary have been obtained for complex text edit applications where many revisions must be made to lengthy documents. Furthermore, automatic typing systems tend to bring effective production within reach of even mediocre typists, although high speed typists can push the system to its optimum by shortening the input cycle time for original keyboard entry.

Typed output for single-copy, error-free original correspondence (assuming a typical letter length of about 150 words) tends to be the area where the smallest productivity improvement is experienced—typically on the order of a less than two-fold increase. Where multiple originals are required, the productivity tends to increase dramatically. On the whole the chances of getting a significant improvement in productivity are great, with up to 85 percent of current word processing users reporting that their systems are cost-effective and that they are pleased with the results.

HOWEVER . . .

No advance in technology is achieved without cost. The development of powerful word processing systems may have provided office workers with dramatic improvements in overall efficiency, but it has also created some new problems, particularly with respect to the equipment selection process. Never before have OA customers had so many factors to weigh in the acquisition decision and so many alternative equipment configurations to choose from. This is not simply an embarrassment of riches; a wrong decision in this market can result in unacceptable productivity levels, prohibitive service and maintenance costs, and equipment and media compatibility problems of insurmountable difficulty. Specific problem areas that can negate the advantages of word processing technology are as follows:

- **Media compatibility**—Not all diskettes are interchangeable, even within a single vendor's product line. This can affect both the process of converting from an older wp system to a newer one and the flow of work in an organization that uses more than one system or model.
- **Equipment compatibility**—Again, not all systems, even within a single vendor's product line, are compatible with one another. It should never be assumed that two pieces of equipment can be connected to one another; compatibility should be confirmed and documented or demonstrated by the vendor.
- **Upgradability**—Workloads can increase rapidly, particularly after the implementation of word processing in an organization not previously automated. While most systems today may be upgraded to accommodate the need for increased capacity, the ease and cost of such upgrades are by no means uniform throughout the industry. Prospective customers should investigate the availability of upgrades at all levels of the vendor line being considered.
- **Modularity**—Much acclaimed for their flexible, user-tailorable designs, today's modular systems can be a mixed blessing for inexperienced wp customers. A single model may be available with four or five different levels of main memory, software, and display features. Printers may be available in a wide range of speeds and output quality. Uninformed customers can easily purchase (or get sold) more capacity than is cost efficient for present workloads.
- **Service**—It varies a great deal in quality, not only from vendor to vendor, but also from locale to locale. Inadequate service can prevent a word processing system from equalling, let alone surpassing, the productivity of manual typewriters.
- **Vendor solvency**—An excellent word processing system rarely remains excellent if its manufacturer is broke or out of business. Service is often the first expense to be cut by an ailing company, and the volatility of today's word processing market may cause such financial ailments to become commonplace.

Word Processing Systems

- ▷ • **User organization**—It is easy to let the system dictate the nature of the wp organization. It is also a potentially costly mistake. Users should plan their wp organizations to meet company needs, then purchase an appropriate system. Purchase price is only one factor in the ultimate cost effectiveness of a system, and a multiterminal system may not prove cheaper than a like number of standalones if it requires centralization of a workload that should remain distributed.

Most of these problem areas can be avoided by adherence to a common maxim: take nothing for granted. Vendors want to sell word processing systems, and customers must take steps to inform themselves independently of the advantages and restrictions involved in the implementation of word processing. This applies equally to the basic issue of word processing productivity as well. Despite the claims and calculations produced by vendors and the press, office productivity is difficult to measure or quantify beyond question. The gains cited in volume of work processed, for example, may be subject to undetectable error. If a word processing center is now handling three times the correspondence it handled as a typing pool, does this mean that three times as many letters are going out in the mail? Perhaps. It may also mean that originators have discovered the ease and speed of word processing revision capability and are now resubmitting letters that used to go out with less than perfect wording. In short, the prospective wp user must evaluate word processing technology and products from a knowledgeable, application-specific standpoint. Office automation does not ensure automatic productivity gains or cost reductions.

ECONOMIC TRADEOFFS

Consider the example of a medium-sized office with a balanced workload of correspondence typing, text editing, and repetitive typing—typewriters used on a regular basis throughout the day. The output is assumed to be 150,000 typed lines per year from three secretary/typists. The salary of each secretary is \$200 per week, plus about \$60 in

company-paid benefits, amounting to a total labor expenditure of approximately \$40,000 per year. One-time typewriter costs bring this total to \$43,000.

A single secretary/typist with a word processor may equal the output of a conventional three-secretary office. However, another secretary will probably be needed to handle nontyping administrative duties. Total labor expenditures will thus be reduced to \$27,000. Purchase of a fairly sophisticated standalone word processor, plus installation, may be estimated at \$10,000. This simple scenario results in a first year savings of \$3,000.

During subsequent years (following full payout of the equipment) the cost in the above example for the automatic system would be about \$13,000 per year less than that of the conventional system—based on salary differences only. This represents about a one-third decrease in office typing expense by virtue of using word processing equipment and specialization of function. The results illustrated will vary depending upon specific customer conditions, including daily hours of system utilization, extent of text editing (revision) versus repetitive typing, length of individual documents, etc. As the mix of jobs shifts away from short one-time noncomplex letters toward either heavier text editing or repetitive typing, the advantage moves more towards word processors, since the higher speeds and intelligence of the automatic systems can be employed to full advantage.

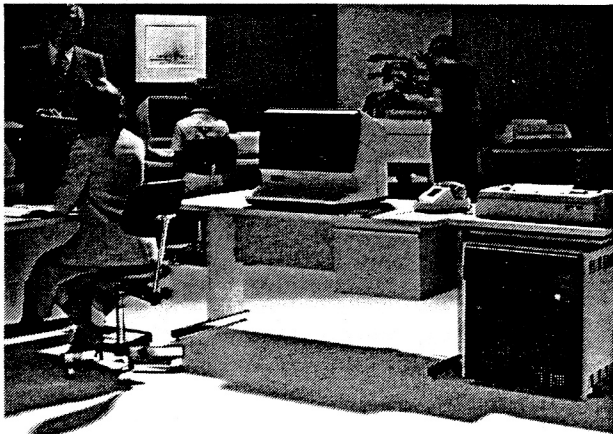
Note that the example shows how full amortization of the equipment can well occur within the first year.

For those systems with point-to-point communications interfaces, a whole new set of trade-offs can be made by comparing telephone transmission line costs with postage charges and the time value of immediate (hard copy) message transfer.

FUTURE OUTLOOK

A look towards the future necessitates a quick look at the immediate past. After years of deliberately designing products to be incompatible with their competitors' (and in some cases their own), vendors have had cause recently to discover and respond to the demand for products integrated at the workstation level, at the system level, and at the vendor level. Almost all new product announcements in the recent past are responses to this demand and so include workstations which feature multitask and alternate mode processing capabilities, combined word/data/graphics/processing and voice/electronic mail capabilities, and joint vendor enterprises intended to improve intervendor equipment compatibility. In 1984, for example, at the Syntopican and NCC trade shows, intervendor equipment networks were featured. This served not only to exhibit that it can be done but also that vendors are now *willing* to do it.

However, the identity crises many dedicated word processor vendors are suffering from and the outlook for word processing remain constant concerns of industry watchers. The apparent response to the identity crises has most



AES Savin Multiplus Shared System

Word Processing Systems

➤ recently been to leave the market, a move made by Dictaphone in spite of its well developed systems, to attack the market, a move made by NBI with its announcement of personal computers and technical workstations, or to OEM someone else's equipment, a move made by A.B. Dick, Datapoint, and others who have chosen the Convergent Technologies systems as their offering to the marketplace. Word processing, for the most part, has been lost in the overall concern for *Office Automation* in whichever context it is meant. The market shakeout is about done; now it is time for the vendors who have thus far survived to prove that they will survive for the long run. And what for word processing?

In many cases the facts still hold true that word processing users differ from office automation or even data processing users. The typical word processing operator requires a system that permits the handling of large volumes of text in a great many different ways in the fastest and most efficient manner, fast and efficient often being equated to "easy to use." Companies will still have a need to produce several hundred page volumes which will be periodically updated and revised. They will also still be putting out large reports in which they will want graphic illustrations combined with the text and will want to have the capability to revise it as many times as necessary to get it right. In short, there will still be a need for a system dedicated to the word processing application.

Though the office automation market at this time appears to be the most lucrative one, given the need and steady (if not frenetic as previously) growth that is sure to remain, vendors may be led to *rediscover* the word processing market. We would expect that manufacturers will ultimately have to concede that performing multiple operations or functions at the cost of "ease of operation" designed for the casual user may be fine for office automation systems but is short changing the individual functions. The future outlook for word processing will simply be a continuation of the recent past with a reemphasis on the requirements for high volume production in the most efficient way. In the near term this may be summarized as follows: Product announcements will continue to feature the integration of diverse workstation types into networks at the local and remote levels as well as the integration of tasks on multifunctional workstations. However, though intervendor compatibility will become commonplace, a renewed emphasis on matching the workstation to the environment in which it will be used will encourage the enhancement of present day word processing systems and change marketing rationale.

Market forces will continue to eliminate those who cannot compete in matching IBM price reduction for price reduction, but will not eclipse or eliminate the dedicated word processing product. Those products will continue to be purchased by those requiring high-volume, high-production text processing capabilities. Marketing, however, will tend to be through dealer and, more heavily, distributorships that will have to take on some of the former training and support provided by the manufacturer. Several vendors have already turned over their word processor prod-

ucts to dealers while they concentrate their direct marketing efforts on the *Fortune 1300* companies. Time will tell if this philosophy will aid survival against IBM, Data General, et al.

PLANNING CONSIDERATIONS

Before rushing on to the equipment comparison charts and selecting a word processing system, it will be wise for the potential user to examine current operations. Emphasis should be placed upon typing and dictation activities for the purpose of evaluating and documenting:

- The nature and volume of present typing operations (extent of editing, multiple original generation, form letter preparation, etc.).
- The people engaged in typing and dictation activities.
- The ratio of secretarial time spent on typing/dictation functions versus administrative/nontyping activities.

Personal interviews with secretaries and the originators of documents to be typed, along with typing activity time logs should provide the raw data for the evaluation.

Rough typing volume guidelines would be to consider an automatic typing system when loads reach 100,000 lines-per-year levels, or when labor costs directly related to typing reach the \$5,000 to \$10,000 level, as another low-end guideline.

Based upon these preliminary findings and with consideration for short-to-long term growth and expansion, a recommendation should be made to top management regarding the decision to commit to office typing automation. The chances for ultimate success rest largely on the initial commitment from top management to utilize word processing and the personnel and procedures selected to implement their commitment. At one time, word processing meant the implementation of total word processing, throughout the company, in one or a series of word processing centers. This unilateral approach is no longer considered appropriate; generally the procedure is to look at office organizations and personnel, and select from a number of alternative models the one best suited to a particular environment. This could be the centralized word processing center, with a complete divorce between correspondence and administrative tasks. It is more likely, these days, that the appropriate choice will recognize some need for organization by department or function, and the requirement to achieve added flexibility by having some secretaries who combine administrative and correspondence tasks, doing now one and then the other. The need for some executives to retain a personal secretary can also be recognized in this, more flexible and forgiving environment.

The best way to implement a word processing decision in a firm of any size is on a function by function or department by department basis. The first department to try word processing should be selected not only on the basis of the

Word Processing Systems

➤ volume and nature of their workload, but also on the basis of attitudes toward word processing. It is vital to the future success of word processing within a company that the first installation be manned by enthusiastic personnel who will look on initial problems as interesting challenges and who will insure that the company's first try is a real success. The limited size and scope of the first installation allows the firm to develop good cost/performance data for subsequent comparison studies and will also permit training personnel without disrupting the entire organization.

After the initial examination of nonautomated activity has taken place and an area within the company has been selected for pilot application, selection of appropriate equipment can be made. It should be noted that some degree of reorganization for the secretarial function into typing (correspondence) versus nontyping (administrative) functions might be required; to some extent reorganization will be influenced by the specific nature and capabilities of the equipment selected.

Based upon the specific nature of the typing work, the activity level of the word originators (dictators), and the historical job stability of the secretarial personnel, a good initial feel for the complexity of the system to be selected can be obtained. For instance, if personnel turnover is high, the average skill levels are low and the typing requirements are simple, it makes little sense to install a complex mini-computer-based system that requires extensive operator training. Further, the user should limit his initial cash investment in new equipment to a minimum since the first systems acquired may not work out satisfactorily.

One good way to start out is the use of a time-sharing service which will generally provide the lowest possible entry costs while giving the operators a feel for the capabilities of automatic typing. In any event, the user should make an effort during the first year to remain flexible. The best way to do this is to rent equipment. Even if the complete pilot program is a success, subsequent automation of other company areas can well call for a centralized in-house system.

After determining via the comparison tables (which make up the second half of this report) what word processing systems or services are best suited to the application, the potential user should then ascertain the quantity and quality of local support offered—perhaps the most significant factor in any evaluation.

Vendor support is extremely important. Except for IBM, Xerox, and a few other large firms, the predominant nature of the word processing industry is for the manufacturer to sell through dealers and/or franchise agents. In most cases these dealers and agents are separate business entities who purchase equipment from the manufacturer for resale. Under these conditions, the reputation and soundness of the dealer is as important as that of the manufacturer. Often the need for careful appraisal can be even greater if the independent dealer arranges third-party lease financing. This effectively means that the user has purchased the system, and might be in sad shape if either the dealer or manufacturer refuses to back up the system with proper support. By carefully checking with other users in area, and by adding self-protective clauses to the standard lease contract, the user can generally obtain a high degree of assurance that his interests will be protected.

After the pilot installation has been running and initial problems solved, the cost/performance of the operation should be studied and compared against nonautomated segments of the business. Only when performance is improved and costs reduced should the program be expanded. A good ball park figure for management to shoot for is an overall typing cost savings of about one-third. This figure is achievable within a year and can be expected to improve with time as more cost-effective equipment is introduced and as personnel become familiar with equipment and procedures.

THE TABLES

The tabulations that follow present the features and characteristics of standalone and multiterminal systems marketed by over 50 vendors. For reader convenience a full listing of these vendors or manufacturers, together with their head-quarter addresses and telephone numbers is presented as a preface before the table entries.

The tabulations have been divided into two sections relating to categories of word processing equipment:

- Standalone Word Processing Systems, and
- Multiterminal Word Processing Systems

A Key to the Comparison Tables included in this report provides full explanation of the comparison entries. ➤

Word Processing Systems

KEY TO STANDALONE & MULTITERMINAL WORD PROCESSING TABLE ENTRIES

Comparison table entries have been divided into two sections related to categories of word processing equipment. Tables for both categories are identical except for the block of information headed "Systems Configuration." The two categories are:

- **Standalone Word Processing Systems** (includes single-station electronic typing systems using external magnetic text storage medium (card, tape, cassette, diskette), video screen display systems, and software-programmable word processing logic.
- **Multiterminal Word Processing Systems** (includes systems designed to support multiple terminals, which may be intelligent or non-intelligent, as well as multiple printers and other peripherals. Included in this category are systems which share the word processing logic of a central minicomputer, and systems with distributed logic which share peripherals and/or file storage. Some systems are a combination of both of these approaches.)

Company and Model identifies the vendor/manufacturer and the name of the specific word processing system.

For Standalone Word Processing Systems, **System Configuration** describes the individual components under Configuration (typewriter, keyboard, display, printer) as being integral or modular components of the system. **Memory Size** gives the size of the system's internal, main memory.

For Multi-Terminal Word Processing Systems, **System Configuration** identifies the **System CPU/Controller**, which may be a minicomputer, and **CPU/Controller Memory** indicating the total amount of main memory.

Storage Media identifies the medium used (diskette, disk, cassette tape, mag cards, etc.).

Storage Capacity is the total amount of text stored per unit of media and which may be accessed by the system without changing media.

File Organization describes the manner in which files are arranged on the storage media (by page, document, etc.).

Number of Keystations Supported and Number of Printers Supported describes the maximum size to which the system can be configured.

DISPLAY FEATURES

Screen Size and Type lists the physical dimensions of the video screen and whether it is a CRT, gas plasma, or LED display.

Color refers to the colors used on the CRT, LED or plasma display. Both the color of the background and the color of the characters are identified, such as "green on black."

Display Buffer Memory is the number of characters which can be held for display on the screen.

Format and Capacity is the number of characters per line, number of lines displayed, and total capacity in characters of the screen.

Character Generation is the technique used by the display to create characters on the screen. If by dot matrix, the size of the matrix is listed (e.g. 5 x 7 dot matrix).

Cursor Positioning describes the directions in which the cursor moves; i.e., up, down, left, right, home.

Vertical Scrolling is the ability of the system to move up and down through a page or more of text.

Horizontal Scrolling is the ability of the system to move horizontally along a line of text to access more characters than may be displayed on the screen at one time.

Display Highlighting is the way in which text is highlighted on the screen (reverse video underline, blinking, bold).

Character Size Control permits the viewing of a full-page of text at regular character size or one-half page at double size.

Character Pitch Display is the ability to display text in a number of different pitches.

Character Spacing Display is the ability to display proportionally spaced text to simulate a printed page.

Line Spacing Display is the ability to display single, one and a half-, or double-spaced lines of text (and other spacing occasionally).

Line Justify Display is the ability to display text with the right margin justified via interword, proportional, or inter-character spacing.

Underscore Display is the ability to display underscored characters.

Sub-/Superscript Display is the ability of the system to display characters above or below the typing line.

Multi-Column Page Display is the ability to display text or numerics in multiple columns.

Stored Form Recall/Display is the ability of the system to store a form, recall it and display it for merging with keyboarded text or stored text.

Control Code Display is the ability of the system to display instructions, commands, or codes on the screen.

Format Statement Display enables the viewing of format instructions for text such as margin and tab settings, decimal tab settings, etc.

PRINTER FEATURES

Printer Type & Speed identifies the brand name of the printer (Qume, Diablo, etc.), printer type (daisy wheel, etc), and gives speed in characters per second or lines per minute.

Printer Buffer Memory is the amount of temporary storage for text between keyboard and printer.

Character Pitch/Spacing identifies the pitches and or proportionally spaced fonts available.

Writing Line Width and Carriage Paper Width indicate the width of the typing line and the maximum paper width the printer can accept.

Word Processing Systems

First Line Forms Advance indicates the ability of a printer fitted with a forms feeding device to automatically advance to the first line of the next form at the completion of a document printout.

End-of-Page Stop halts the printer at the end of a page for manual paper handling or font change.

Justified Printout indicates the ability of the printer to produce printout with an even right-hand margin.

Sub-/Superscript Printout is the ability of the printer to print characters in line increments above or below the typing line.

Non-Adjust Printout enables the printout of sections of text as is, i.e., without margin or line length adjustment.

Bidirectional Printout indicates the ability of the printer to print from left to right and right to left.

Simultaneous Input/Output indicates that the system can support printing and text editing/entry functions at the same time.

GENERAL FEATURES

Stored Format is the ability of the system to store format information, either with the text or in a separate document, to be used to format text on the display and/or during printout.

Default Format is the ability of the system to automatically implement pre-set format information if the operator fails to designate any other.

Stored Multiple Formats is the ability of the system to store more than one format and to access the desired format on command.

Machine Dialog is the ability of the system to interact with an operator in a conversational mode to guide the operator through feature selections/functions.

Menus and Prompts are the lists containing the available system functions which are displayed on the screen for operator selection. The making of one selection will cause additional prompts to appear for further choices as required.

Forms Input is the ability of the system to space from field to field, with a carrier return or other single action, to fill in a prerecorded form.

Control Character Printout is the ability of the system to provide printout showing control characters.

Printout Queuing is the ability to line up a number of pages or documents for printout while the operator performs other tasks.

Prioritizing is the ability of a system to give different priorities to documents that are queued to a printer. For instance, one document can be given a high priority, which means that it "moves to the head of the line" and is the next document printed.

System Status Reporting is the ability of a system to display the current mode(s) of operation.

Automatic Indexing is the ability of a system to automatically create an index listing of the documents stored on media. Indexes contain varying levels of information.

System Security is the provision for access control to the system and or specific documents in the form of a keylock, log-on password, etc.

TEXT INPUT FEATURES

Auto Decimal Alignment is the ability of the system to automatically align columns of decimal figures on the decimal point.

Hyphenation identifies the method used for hyphenation such as manual, hot zone, or scan.

Auto Input Underlining indicates the ability of the system to automatically underline a defined segment of text as it is input.

Auto Centering indicates the ability of the system to automatically center a word or text segment either between margins or about a designated point.

Variable Line Spacing is the ability of the system to support printing with different line spacings without physical setting changes being made to the printer.

Auto Page Numbering is the ability of a system to automatically generate page numbers within documents upon text entry and during the revision process.

Auto Headers/Footers is the ability of a system to place header/footer text at the top or bottom of each page of a document.

Auto Footnote Tie-In permits the footnote to be tied to the appropriate text segment so that when that segment is moved, the footnote will automatically travel with it.

Auto Pagination is the ability of a system to take a document and divide it into pages of a specified length.

TEXT EDIT & MERGE FEATURES

Document Assembly/Merge refers to the ability of a system to assemble new documents from previously recorded text.

Search Capability describes the method by which the system searches for an editing point, such as by document, page or text string.

Delete Capability lists the grammatical segments of text which may be identified and deleted: C is Character, W is Word, L is Line, S is Sentence, P is Paragraph and Page is spelled out.

Global Search and Replace is the ability of a system to search for repeated occurrences of a specified character string and replace it with another specified character string.

Block Move/Copy is the ability of the system to designate a block of text and move it as a block within a document or to another document.

Column Move/Delete is the ability of the system to manipulate columns of characters as a unit.

Word Processing Systems

Auto Repagination is the ability of a system to automatically change page endings if text is inserted or deleted within a document or if a new page length is desired.

Auto Renumbering indicates that when a document whose pages have been numbered is altered so that renumbering of pages is required, it is done automatically.

Auto Window/Orphan Adjust is the ability of the system to prevent the first line of a paragraph, or a title or heading from being the last line on a page.

Auto File Sort is the ability of the system to perform sorts on a file and arrange the information in alphabetical, numerical or another order.

Auto File Select is the ability of a system to make selections from data files based on characters which appear in a certain data field. For example, select all addresses with an 08075 zip code for forwarding of a letter.

Term Dictionary/Glossary is the ability of a system to store technical vocabulary or frequently used phrases and retrieve them with a significantly smaller number of alphanumeric characters.

Spelling Verification is the ability of a system to flag words that do not match words entered in a stored system dictionary for operator correction.

COMMUNICATIONS

Lists the Availability and Protocols and Speeds provided for the system.

ARITHMETIC CAPABILITY

Describes the ability of the word processing system to also be used for calculations on numerical data.

Keystroke Storage is the ability to store a string of commands and then recall them using a single keystroke.

EDP CAPABILITY

Multiprogramming indicates the ability of the system to simultaneously process different programs such as file sorting and text editing.

Micro Operating Systems are programs designed for use on a microcomputer that can be run on a word processing system, thus enabling the system to run applications programs.

Compilers are the special software packages that translate languages such as Fortran, Cobol, Basic or PL/I into machine-level language and indicate that the system employs a multi-purpose computer and possibly user programming.

Interpreters are computer programs that translate and execute each source language statement before translating and executing the next one.

Applications Software is a listing of software packages that enables the system to perform tasks not included in the basic system software.

Peripherals is a list of peripheral devices which may be supported by the system as options to extend system capabilities. □

Word Processing System Vendors

AES Data, Limited
Suite 600
100 Alexis Nihon Boulevard
St. Laurent, Quebec H4M 2P2 Canada (514) 744-6711

Algorithmics, Incorporated
167 Worcester Road
Wellesley, MA 02181 (617) 237-7226

ATV Systems Incorporated
2921 South Daimler
Santa Ana, CA 92705 (714) 546-3551

Axxa Corporation
50 Park Place
Newark, NJ 07102 (201) 642-2246

Barrister Information Systems Corporation
One Technology Center
45 Oak Street
Buffalo, NY 14203 (716) 842-2700

Burroughs Corporation
1 Burroughs Place
Detroit, MI 48232 (313) 972-7000

Cado Systems Corporation
2055 W. 190th Street
Torrance, CA 90504 (213) 323-8170

Compal Incorporated
Suite E
8500 Wilshire Boulevard
Beverly Hills, CA 90211 (213) 652-2263

Compucorp
2211 Michigan Avenue
Santa Monica, CA 90404 (213) 829-7453

Computer Consoles, Incorporated
11490 Commerce Park Drive
Reston, VA 22091 (703) 648-3300

CPT Corporation
8100 Mitchell Road
P.O. Box 295
Minneapolis, MN 55440 (612) 937-8000

Data Processing Design, Incorporated
1400 N. Brasher
Anaheim, CA 92807 (714) 970-1515

Digital Equipment Corporation
146 Main Street
Maynard, MA 01754 (617) 897-5111

Exxon Office Systems
777 Long Ridge Road
Stamford, CT 06902 (203) 329-5000

International Business Machines
Old Orchard Road
Armonk, NY 10504
(Contact your local IBM office)

Interactive Computer Systems
500 Bradley Hill Road
Blauvelt, NY 10913 (914) 358-0025

Lanier Business Products
1700 Chantilly Drive, NE
Atlanta, GA 30324 (404) 329-8000

Lexocorp Corporation
11030 Roselle Street
San Diego, CA 92121 (619) 457-4405

Megadata Corporation
35 Orville Drive
Bohemia, NY 11716 (516) 589-6800

NBI, Incorporated
3450 Mitchell Lane
P.O. Box 9001
Boulder, CO 80301 (303) 444-5710

NCR Corporation
1700 S. Patterson Boulevard
Dayton, OH 45479 (513) 445-2731

Ontel Corporation
250 Crossways Park Drive
Woodbury, NY 11797 (516) 364-2121

Philips Information Systems
4040 McEwen
Dallas, TX 75234 (214) 386-5580

Remington Rand Corporation
9950 W. 74th Street
Minneapolis, MN 55344 (612) 941-0400

Rothenberg Information Systems
444 Castro Street
Mountain View, CA 94041 (415) 965-7380

Sony Corporation of America
One Sony Drive
Park Ridge, NJ 07656 (201) 930-1000

Syntrex, Incorporated
246 Industrial Way West
Eatontown, NJ 07724 (201) 542-1500

Technology International Corporation
200 Lambstreet Road
Orlando, FL 32859 (305) 859-4177

Wang Laboratories, Incorporated
1 Industrial Avenue
Lowell, MA 01851 (617) 459-5000

Wordplex Corporation
141 Triunfo Canyon Road
Westlake Village, CA 91361 (213) 889-4455

Wordtronix Inc.—see Remington Rand Corporation

XMark Corporation
3176 Pullman Street, 119
Costa Mesa, CA 92626 (714) 556-9210

Xerox Corporation
800 Long Ridge Road
Stamford, CT 06904 (203) 329-8700 □

Standalone Word Processing Systems

The following tabulations cover the parameter, features, and pricing of 61 standalone word processing systems currently marketed by 28 different vendors.

The first or even-numbered pages cover System Configuration, Display Station Features, Printer Station Features, General Functional Features, and Text Input Features for each standalone system.

The second or odd-numbered pages continue the coverage of Text Input Features and also detail Text Edit & Merge Features, Communications, Arithmetic Capability, EDP Capability, Peripherals, Background Information, and Pricing & Terms.

Standalone Word Processing Systems

COMPANY	AES Data Ltd.	AES Data Ltd.	AES Data Ltd.	Algorithmics, Inc.
MODEL	ALPHAPLUS Models 10, 12-1, 12-2	ALPHAPLUS Model 14	AES 7100	Algo-2100
SYSTEM CONFIGURATION				
Configuration	Integrated, CRT/diskette drives (1 or 2), printer	Integrated, CRT/diskette drives (1 or 2), printer	Keyboard, CRT, 2 diskette drives, printer	Keyboard, CRT, diskette console, printer
Microprocessor Type	Z80A	Z80A	Z80	Z80
Memory Size	64KB	128KB	256KB	64KB (expandable)
Storage Media	SSST diskettes	DSDT diskettes	SSST or DSDT	Dual diskette (5- or 8-inch)
Storage Capacity	138KB each	560KB each	160KB or 738KB	500KB (5"), 900KB (8")
DISPLAY FEATURES				
Screen Size & Type	10" diagonal CRT	10" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	Green on black	Green on black	Green on gray	Black on white or gray
Display Buffer Memory	8000 characters	8000 characters	8000 characters	1920 characters
Format & Capacity	16 lines by 80 chars.	16 lines by 80 chars.	25 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1280 characters	1280 characters	2000 characters	1920 characters
Character Generation	Dot matrix	Dot matrix	Dot matrix	7 x 10 user programmable
Cursor Positioning	L, R, U, D, H, end of text	L, R, U, D, H, end of text	L, R, U, D, H, End	L, R, U, D, top, bottom
Vertical Scrolling	Std. to 99 lines/page	Std. to 99 lines/page	Std. to 99 lines/page	Standard
Horizontal Scrolling	Std. to 254 char./line	Std. to 254 char./line	Std. to 254 char./line	Not available
Display Highlighting	Half-tone video	Half-tone video	Half-tone video	Standard
Character Size Control	Not available	Not available	Not available	Optional
Character Pitch Display	Not available	Not available	Not available	Codes only
Character Spacing Display	Not available	Not available	Not available	Codes only
Line Spacing Display	Not available	Not available	Not available	Standard
Line Justify Display	Codes only	Codes only	Codes only	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Codes	Codes	Codes	Codes only
Multi-Column Page Display	Standard	Standard	Standard	—
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Integrated 30 cps	Integrated 30 cps	Daisywheel, 45 cps ¹	Daisywheel, 45 cps ¹
Printer Buffer Memory	Not available	Not available	—	Not available
Character Pitch/Spacing	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, 15 or proportional	1 to 120
Writing Line Width	16"	16"	16"	13.2"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Optional
GENERAL FEATURES				
Stored Format	Standard w/document	Standard w/document	Standard w/document	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Status line on display	Status line on display	Status line on display	Menus & operator cueing
Menus and Prompts	—	—	—	80 user messages
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	With Design-a-Text	With Design-a-Text	With Design-a-Text	Std.; up to 60 doc/60
No. of Pages/Documents	Unlimited	Unlimited	Unlimited	—
Prioritizing	Input order only	Input order only	Input order only	—
System Status Reporting	Standard index	Standard index	Standard index	—
Automatic Indexing	Std. (alpha/numeric seq.)	Std. (alpha/numeric seq.)	Std(alpha/numeric seq.)	—
Docu. Title/Docu. History	Not available	Not available	Not available	—
System Security	Not available	Not available	Not available	Opt.; keylock & password
Operator log-on password	Not available	Not available	Not available	—
Document access password	Not available	Not available	Not available	—
No. of priority levels	Not available	Not available	Not available	—
Keylock	Not available	Not available	Not available	Optional
Other	Not available	Not available	Not available	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Scan with operator decision	Scan with operator decision	Scan with operator decision	Optional
Auto Input Underlining	Yes	Yes	Yes	Not available
Auto Centering	Standard-page & column	Standard-page & column	Standard-page & column	Not available
REMARKS & OTHER FEATURES		May have SSST drives.	Also has Help function. ¹ Qume wide track 45-cps printer also available.	¹ Scientific printer avail. with Greek Math/English chars. & symbols Screen & printer graphics; bar charts, pie charts, via printer.

Standalone Word Processing Systems

AES Data Ltd.	AES Data Ltd.	AES Data Ltd.	Algorithmics, Inc.	COMPANY
ALPHAPLUS Models 10, 12-1, 12-2	ALPHAPLUS Model 14	AES 7100	Algo-2100	MODEL
Via codes During output Standard Standard Standard	Via codes During output Standard Standard Standard and manual	Via codes During output Standard Standard Standard and manual	Standard Standard; Arabic Standard Optional Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Standard	Standard	Stored text assembled & merged w/keyboarded text By character string	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By doc. name, page no. 45 char. text string search or cursor position	By doc. name, page no. or block, 45 char. text string search or cursor position	By doc. name, page no. or block, 45-char. text string search or cursor position		Search Capability
C, W, L, Page, Paragraph Remainder or spec. block Standard	C, W, L, Page, Paragraph Remainder or spec. block Standard (background/foreground)	C,W,L, Page, Paragraph Remainder or spec.block Standard (background/foreground)	C, W, L, or specified block Standard	Delete Capability
				Global Search & Replace
Standard Standard Standard On output Standard Not available	Standard Standard Standard On output Standard 7 level sort	Standard Standard Standard On output Standard 7-level sort	Standard Standard Standard On output Standard Optional	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
—	7 levels 6 criteria + and, nor, or	7 levels 6 criteria + and,nor,or	Optional	Auto File Select
Glossary Not available	Standard glossary Not available	Standard glossary Standard	Optional Optional	Term Dictionary/Glossary Spelling Verification
Optional Async—ASCII/TTY Sync—Point-to-Point	Optional Async—ASCII/TTY Sync—Point-to-Point	Optional Async-ASCII/TTY; Sync-pnt-to-pnt, 3270 SNA, 3270 Bisync, 2780, 3780	Optional TTY, 2741, 2780, others; 65-9600 bps	COMMUNICATIONS Availability Protocols & Speed
5-function column verify Arithmetic keystroke storage w/Design-a-Text Design-a-Text for text and financial	5-function column verify Arithmetic keystroke storage w/Design-a-Text Design-a-Text for all functions	5-function column verify; keystroke stor w/Design-a-Text Design-a-Text for all functions	Optional	ARITHMETIC CAPABILITY
Not available Not available Not available Not available Not available	Standard AES CP/M 2.2 Basic Basic Lifeboat packages, Peachcalc & others Dual sheet & envelope feeder, forms tractor	Standard AES CP/M 2.2 Basic Basic Lifeboat packages; Peachcalc; others OCR, paper tape punch, dual sheet feed, wide track printer, dual sheet envelope feed, shared printer control	— CP/M Basic/Fortran/Cobol/APL ¹ Basic, Pilot Payroll, billing, gen. ledger, mailing list ² OCR, Photocomp, line printers, RS-232 devices, Winchester & removable cart. disks	KEYSTROKE STORAGE
Dual sheet & envelope feeder, forms tractor				EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
August 1981 Canada	March 1983 Canada	July 1983 Canada	January 1978 USA	PERIPHERALS
Depends on configuration	Depends on configuration	Dependent on hardware/software requirements	\$8,900 (5" diskettes) \$9,900 (8" diskettes) Not available	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
—	—	—	Figures avail. upon request 8% of hardware price per year	Rental
—	—	—	90 days	Lease
90 days, ESR support	90 days, ESR support	90 days, ESR support	Network configurations avail. Programmable keyboard layout. ¹ Assembler, Pascal, Pilot, PL/1, PL/C. ² Sort, merge, financial analysis, business plng.	Maintenance
				Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	ATV Systems, Inc.	ATV Systems, Inc.	Burroughs Corporation	Cado Systems Corporation
MODEL	J 425	J 500	OFIS™writer 400	CAT III
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT, integral desk, prtr, 2 diskettes	Keyboard/CRT/2 diskette console, printer	Keyboard/CRT/diskette console, printer	CPU, keyboard, printer
Microprocessor Type	Z80, Intel 8080	16-bit minicomputer	8085	diskette drive
Memory Size	—	128KB	64KB, 112KB opt.	Two 8085 processors
Storage Media	Dual diskette	Cartridge disk, diskette	Dual-density, dual-sided 1 or 2 diskettes	96KB + 32KB
Storage Capacity	256KB/diskette	1 MB disk., 24-48 MB disk	288KB/diskette	Diskette; Winchester
DISPLAY FEATURES				
Screen Size & Type	17" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	Green on black	White on black	Green on black-gray ¹	Green on black
Display Buffer Memory	4320 characters	1920 characters	9K characters	32K characters
Format & Capacity	56 lines by 80 chars.	24 lines by 80 chars.	30 lines by 84 chars.	80 lines by 25 chars.
Total Characters	6656 characters	1920 characters	2400 characters	2000 characters
Character Generation	7 x 13 dot matrix	8 x 10 dot matrix	8 x 12 dot matrix	7 x 9; 8 x 10 pixels
Cursor Positioning	L,R,U,D,H, end of text	L, R, U, D, H,	Char., word, field, line ²	L,R,U,D,H,ln/wd srt/en
Vertical Scrolling	Standard	Virtual	To 121 lines	Line., virtual
Horizontal Scrolling	Standard to 253 char.	Virtual to 450 char.	To 200 chars.	To 160 chars.
Display Highlighting	Standard	Blinking, reverse video	Bold blinking rev. video	Reverse, blink, half-ton
Character Size Control	Not available	Not available	Standard	—
Character Pitch Display	Not available	Not available	12	Standard
Character Spacing Display	Not available	Not available	Mono	—
Line Spacing Display	Standard	Not available	1, 2, 3	Standard, single
Line Justify Display	Not available	Not available	Not available	—
Underscore Display	Standard	Standard	Standard	—
Sub/Superscript Display	Standard	Standard	Standard	—
Multi-Column Page Display	Standard	Standard	Not available	—
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Qume daisy 55 cps	Daisy 40/45/55 cps ¹	Daisy; 20/35/55 cps	35, 55 cps thimble
Printer Buffer Memory	256 characters	256 characters	4K characters	—
Character Pitch/Spacing	6 to 16	Variable/proportional	10, 12, 15, proportional	10, 12, variable
Writing Line Width	13" and 25.3" opt.	13.2"/26.25"	13.2"	13.2"
Carriage Paper Width	15.5" and 28" opt.	15"/28.24"	15.5"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	—
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	Standard	W/doc. or separate	W/doc. or separate	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Status lines on display	Standard ²	Standard	Standard
Menus and Prompts	Standard	Standard	Menus and bypass	Standard
Forms Input	Standard	Automatic via DataRite	Automatic	Standard
Control Character Printout	Not available	Standard	Standard	—
Printout Queuing	Std.; prints frm dis/disk	Standard	Standard	Standard
No. of Pages/Documents	—	Total diskette	Up to 75 pages	Unlimited
Prioritizing	—	Standard	Not available	—
System Status Reporting	Standard	Standard	Standard	—
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Not available	Optional	Standard	Doc. title/space usage
Operator log-on password	—	Standard w/security	Not available	Standard
Document access password	—	Standard w/security	Standard	—
No. of priority levels	—	One	Disk & indiv. docs.	—
Keylock	—	Not available	Not available	—
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Stored algorithm—auto-matic or selectable	Hot Zone scan w/operator decisions	Manual; w/adjustable hot zone	Auto wordwrap w/ghos hyphen
Auto Input Underlining	Standard	Continuous	Word/continuous	Not available
Auto Centering	Between margins ¹	On page or within col.	Between margins ³	Standard
REMARKS & OTHER FEATURES	¹ Or around a point.	¹ Also 300 lpm printer, NEC Spinwriter, Qume WideTrack, TI 820. ² Extensive menus and operator cueing.	¹ Amber on black or black on white. ² Para., page. ³ Or around a point.	¹ Sentence & paragraph.

Standalone Word Processing Systems

ATV Systems, Inc.	ATV Systems, Inc.	Burroughs Corporation	Cado Systems Corporation	COMPANY
J 425	J 500	OFIS™writer 400	CAT III	MODEL
Standard Standard Standard Standard Standard	Standard Standard Alternate odd/even Not available Standard	Standard Standard Standard Not available Standard	Standard Standard Standard Standard, same page Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Stored text assembled & merged w/keyboarded text or other stored text By doc. name, page no. & char. string	Stored text assembled in variables + para & doc. assembly By document name & char. string	2 or 3 document merge or para. assembly Document title, char. string (64 chars.), page, C, W, L,	Standard	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
C, W, L, Page & specified block Standard	C, L, doc., user defined Next or all occurrences; manual or auto replacement or deletion	Text key segments, block, page Standard	Standard via delete mode C, W, L, S, para, block 50-character string; 1 string in foreground	Search Capability
Standard Standard Standard Standard Standard Optional—8 levels	Standard Standard Standard Standard Standard TypeRite-10 levels; LabelRite-8 levels TypeRite-10 levels; LabelRite-99 levels; foreground Auto Key Sold optionally thru vendors	Standard Standard Standard Standard Standard Screen and disk; 8 levels Select. retrieve 8 levels, 8 criteria foreground Standard Optional	Standard Standard Standard Standard Standard Not available	Delete Capability Global Search & Replace
Optional—10 levels with criteria foreground	Standard Half- & full-duplex TTY ASCII at 110to9600 bps 2780/3780, 3270, Univac Standard	Optional Asynch. TTY 110-1200 baud, Direct Connect to 9600 bps ¹ Optional math package	Standard	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Not available —	Standard Super Basic, Assembly	String commands	Standard Not available	Auto File Select
Optional Asynch., IBM 2741, CMC, ASCII compat. at 110 to 1200 bps Standard	Standard DataRite, ReportRite, JAIMS, AccountRite ³ Line printers, disk storage, tape	Optional Asynch. TTY 110-1200 baud, Direct Connect to 9600 bps ¹ Optional math package	Optional Asynch, bisynch, TWX, Telex up to 19,200 bps	Term Dictionary/Glossary Spelling Verification
—	Standard	Standard CP/M Not available Basic Forms, math, multiplan	Optional Asynch, bisynch, TWX, Telex up to 19,200 bps	COMMUNICATIONS Availability Protocols & Speed
Not available Opt. CP/M Not available	Standard Super Basic, Assembly	Standard CP/M Not available Basic Forms, math, multiplan	Optional Asynch, bisynch, TWX, Telex up to 19,200 bps	ARITHMETIC CAPABILITY
Sort/Select, phototypesetter conversion Tape-to-disk interface, OCR, phototypesetter interface, mag card sheet feeder, shared printer	Standard Super Basic, Assembly	Standard CP/M Not available Basic Forms, math, multiplan	Optional Asynch, bisynch, TWX, Telex up to 19,200 bps	KEYSTROKE STORAGE
September 1977 USA	April 1979 USA	April 1982 USA	September 1982 USA	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
\$9,990 ¹	\$11,900 ¹	\$9,250 w/printer ² \$6,000 w/o printer \$385/mo. (1-yr.) w/prtr. \$250/mo. (1-yr.) w/o prtr	\$4,495 ¹	PERIPHERALS
\$592 (1-yr.) ² \$520 (2-yr.) ² Available	\$612 (1-yr.) ² \$530 (2-yr.) ² Available	—	Available	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$1,687/yr.	\$1,179/yr.	\$1,020 w/printer \$612 w/o printer 90 days	Available	Rental
90 days parts & labor Installed w/self instr. pkg. ¹ Std. carriage prtr; \$11,990 wide carriage prtr; \$8,490 w/o prtr. GSA & quantity discounts avail. ² Incl. maint.	90 days parts & labor ¹ Includes 128K CPU, dual diskettes, display, keyboard. GSA & qty. discounts avail. ² Incl. maint. ³ MIRACALC	¹ And Bisynch 2770/2780/3720 and MT 983 emulation, OFIS director interface, document distribution. ² Incl. 64KB memory, dual-disk, & CRT/keyboard.	Available	Lease
			Self-paced manual ² ¹ Includes CPU, one workstation, diskette drive. ² Or computer aided training or training at customer site at extra charge.	Maintenance
				Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Compal, Inc.	Compucorp	Compucorp	Compucorp
MODEL	EzType	Omega 775	Omega 785	Omega 790
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT/diskette console, printer	Keyboard, CRT, dual-diskette, printer	Keyboard, CRT, hard disk, diskette, printer	Keyboard, CRT, hard diskette, printer
Microprocessor Type	—	Z80A	Z80A	Z80A
Memory Size	64KB to 896KB	64KB to 256KB	64KB to 256KB	64KB to 256KB
Storage Media	Dual-diskette	Dual mini disk (opt.); hard disk (opt. tp cart)	Mini disk; hard disk (opt. tape cart)	Mini disk; hard disk (opt. tape cart)
Storage Capacity	Optional hard disk 400KB/diskette 10MB/45MB hard disk	655KB to 2.4MB	5.5MB to 15.5MB	10.5MB to 30.5MB
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal (no attr.) ¹	12" diagonal (no attr.) ¹	12" diagonal (no attr.)
Color	White on black, reverse ¹	12" wht/blk, 15" grn/blk	12" wht/blk, 15" grn/blk	12" wht/blk, 15" grn
Display Buffer Memory	38K chars./800K chars.	Not available	Not available	Not available
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars. ²	24 lines by 80 chars. ²	24 lines by 80 chars.
Total Characters	—	Varies w/type & setting	Varies w/type & setting	Varies w/type & setting
Character Generation	7 x 9 dot matrix	10 x 12 dot matrix	10 x 12 dot matrix	10 x 12 dot matrix
Cursor Positioning	L, R, U, D, H, tab, end	L, R, U, D, screen U & D ³	L, R, U, D, screen U & D ³	L, R, U, D, screen U & D
Vertical Scrolling	Standard	Virtual	Virtual	Virtual
Horizontal Scrolling	Standard to 250 chars.	255 char. virtual	255 char. virtual	255 char. virtual
Display Highlighting	Inverse video	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Std. on CRTs w/attr.
Character Size Control	Codes	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Std. on CRTs w/attr.
Character Pitch Display	Codes	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Std. on CRTs w/attr.
Character Spacing Display	Standard	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Std. on CRTs w/attr.
Line Spacing Display	Standard	Standard	Standard	Standard
Line Justify Display	Standard	Standard	Standard	Standard
Underscore Display	Standard	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Std. on CRTs w/attr.
Sub/Superscript Display	Codes	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Std. on CRTs w/attr.
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Any std. printer	Daisywheel, 12- to 55-cps	Daisywheel, 12- to 55-cps	Daisywheel, 12- to 55-cps
Printer Buffer Memory	256 chars.	Not available	Not available	Not available
Character Pitch/Spacing	Variable 1 to 120 pitch	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, 15, proportional
Writing Line Width	13"	9½" to 12"	9½" to 12"	9½" to 12"
Carriage Paper Width	16"	14"	14"	14"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	Standard	With document	With document	With document
Default Format	Standard	Operator adjustable	Operator adjustable	Operator adjustable
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Standard	Standard	Standard	Standard
Forms Input	Standard	Automatic	Automatic	Automatic
Control Character Printout	Standard	Not available	Not available	Not available
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Up to 200 pages per disk	4	4	4
Prioritizing	—	Standard on network	Standard on network	Standard on network
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	—	Standard	Standard	Standard
Docu. Title/Docu. History	—	Standard	Standard	Standard
System Security	Standard			
Operator log-on password	—	Std. on Level C & net.	Std. on Level C & net.	Std. on Level C & net.
Document access password	—	Std. on Level C & net.	Std. on Level C & net.	Std. on Level C & net.
No. of priority levels	—	Multi. on Lvl C & net.	Multi. on Lvl C & net.	Multi. on Lvl C & net.
Keylock	Standard	Not available	Not available	Not available
Other	—	Author I.D.	Author I.D.	Author I.D.
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Manual and automatic ghost hyphen	Auto scan, variable hot zone, operator decision (auto on Lvl C & net.)	Auto scan, variable hot zone, operator decision (auto on Lvl C & net.)	Auto scan, variable hot zone, operator decision (auto on Lvl C & net.)
Auto Input Underlining	Standard, also double	On net.—word/contin.	On net.—word/contin.	On net.—word/contin.
Auto Centering	Standard	—	—	—
REMARKS & OTHER FEATURES	Interfaces with popular standard applications. ¹ Amber, green.	Full DBMS ¹ 12" diag. w/attr., 15" diag. w/attr. ² 12" wo/attr.; 12" w/attr. & 15" prog. selectable. ³ Pg U & D, begin & end	Full DBMS ¹ 12" diag. w/attr., 15" diag. w/attr. ² 12" wo/attr.; 12" w/attr. & 15" prog. selectable. ³ Pg U & D, begin & end.	Full DBMS ¹ 12" diag. w/attr., 15" diag. w/attr. ² 12" wo/attr.; 12" w/attr. & 15" prog. selectable. ³ Pg U & D, begin & enc

Standalone Word Processing Systems

Compal, Inc.	Compucorp	Compucorp	Compucorp	COMPANY
EzType	Omega 775	Omega 785	Omega 790	MODEL
Standard Standard Standard Print to screen Standard	Standard During format & output ¹ Left, right—all pages Within doc.—two types W/wo optional decision	Standard During format & output ¹ Left, right—all pages Within doc.—two types W/wo optional decision	Standard During format & output ¹ Left, right—all pages Within doc.—two types W/wo optional decision	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Stored text assembled & merged w/keyboarded text By word or character string of any length	Auto merge to document, screen, or printer. Also report formats & DBMS Text string	Auto merge to document, screen, or printer. Also report formats & DBMS Text string	Auto merge to document, screen, or printer. Also report formats & DBMS Text string	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
C, W, L, S, P, specified block, doc., para., sent. Standard	Char., word, line, block Standard—single or global, hazy or exact match	Char., word, line, block Standard—single or global, hazy or exact match	Char., word, line, block Standard—single or global, hazy or exact match	Search Capability
Standard Standard Standard Standard Standard Optional	Standard Standard Standard Standard Standard Full disk sort, unlimited levels on single pass ² Standard—unlimited lvls.	Standard Standard Standard Standard Standard Full disk sort, unlimited levels on single pass ² Standard—unlimited lvls.	Standard Standard Standard Standard Standard Full disk sort, unlimited levels on single pass ² Standard—unlimited lvls.	Delete Capability Global Search & Replace
Standard				Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Optional Optional w/correction	Standard W/correction & optional hyphenation	Standard W/correction & optional hyphenation	Standard W/correction & optional hyphenation	Auto File Select
Optional Async, ASCII; bisync 2780/3780 at 50 to 9600 bps, 3270 Standard	Optional RS-232, TTY, 2980, 3780, 3275, to 9600 bps Column & row verification auto table math, full funct. built-in calc. Standard	Optional RS-232, TTY, 2980, 3780, 3275, to 9600 bps Column & row verification auto table math, full funct. built-in calc. Standard	Optional RS-232, TTY, 2980, 3780, 3275, to 9600 bps Column & row verification auto table math, full funct. built-in calc. Standard	Term Dictionary/Glossary Spelling Verification
—				COMMUNICATIONS Availability Protocols & Speed
Not available CP/M, CP/M 86, MSDOS Basic/Assembler ¹ Basic Gen. acctg., legal, med. billing, others Any RS-232 peripherals, parallel	Optional on network Zebra, CP/M optional Basic, Fortran Basic CP/M applications library Numerous, including tape cartridge for hard disk backup	Optional on network Zebra, CP/M optional Basic, Fortran Basic CP/M applications library Numerous, including tape cartridge for hard disk backup	Optional on network Zebra, CP/M optional Basic, Fortran Basic CP/M applications library Numerous, including tape cartridge for hard disk backup	ARITHMETIC CAPABILITY
January 1981 USA	1983 USA	1983 USA	1983 USA	KEYSTROKE STORAGE
\$4,495 to \$8,995 ²	\$7,620 to \$13,620	\$10,495 to \$16,495	\$11,995 to \$17,995	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
Available	Available	Available	Available	PERIPHERALS
\$124/mo. to \$237/mo.	Available	Available	Available	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$500 to \$750	Standard	Standard	Standard	Rental
90 day warranty, ¹ Cobol, Fortran, others. ² \$4,695 w/o printer, \$5,495 single-disk draft printer, \$7,995 dual-disk. 35-cps printer, \$8,995 dual-disk 55-cps printer.	Standard Desktop unit, movable keyboard. Selectric or ASCII keyboard. Ext. disks opt. ¹ Also on headers & footers. ² DBMS files presorted.	Standard Desktop unit, movable keyboard. Selectric or ASCII keyboard. Ext. disks opt. ¹ Also on headers & footers. ² DBMS files presorted.	Standard Desktop unit, movable keyboard. Selectric or ASCII keyboard. Ext. disks opt. ¹ Also on headers & footers. ² DBMS files presorted.	Lease
				Maintenance
				Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Compucorp	Compucorp	Compucorp	CPT Corporation
MODEL	Omega 795	Omega 799	Simplifier 700 Series	8505
SYSTEM CONFIGURATION				
Configuration	Keyboard, CRT, hard disk, diskette, printer	Keyboard, CRT, hard disk, disk., printer, tp ctrr	Keyboard, CRT, diskette, printer	Keyboard/CRT/diskett console, printer
Microprocessor Type	Z80A	Z80A	Z80	8080
Memory Size	64KB to 256KB	64KB to 256KB	128KB	96KB
Storage Media	Mini disk; hard disk (opt. tape cart)	Mini disk; hard disk; (opt. tape cart)	Single or dual diskette	8" single diskette
Storage Capacity	15MB to 45.4MB	165KB to 655KB/45.5 MB	328KB	315KB/diskette
DISPLAY FEATURES				
Screen Size & Type	12" diagonal (no attr.) ¹	12" diagonal (no attr.) ¹	12" diagonal CRT	15" diagonal CRT
Color	12" wht/blk, 15" grn/blk	12" wht/blk, 15" grn/blk	White on black	Black on white
Display Buffer Memory	Not available	Not available	Virtual	12K characters
Format & Capacity	24 lines by 80 chars. ²	24 lines by 80 chars. ²	24 lines by 80 chars.	54 lines by 80 chars. ¹
Total Characters	Varies w/type & setting	Varies w/type & setting	1920 characters	4320 characters
Character Generation	10 x 12 dot matrix	10 x 12 dot matrix	10 x 12 dot matrix	7 x 9 dot matrix
Cursor Positioning	L, R, U, D, screen U & D ³	L, R, U, D, screen U & D ³	L,R,U,D,scrn/pg, U & D ¹	Left and right
Vertical Scrolling	Virtual	Virtual	Virtual	Virtual to 12KB
Horizontal Scrolling	255 char. virtual	255 char. virtual	To 255 characters	To 240 characters
Display Highlighting	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Not available	Not available
Character Size Control	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Not available	Not available
Character Pitch Display	Std. on CRTs w/attr.	Std. on CRTs w/attr.	10-pitch	Not available
Character Spacing Display	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Standard	Not available
Line Spacing Display	Standard	Standard	Standard	Single, double, triple
Line Justify Display	Standard	Standard	Standard	Not available
Underscore Display	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Standard	Standard
Sub/Superscript Display	Std. on CRTs w/attr.	Std. on CRTs w/attr.	Standard	Standard (hidden char.)
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Not available	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Daisywheel; 12- to 55-cps	Daisywheel; 12- to 55-cps	Daisywheel; 12-cps	Daisywheel; 45-cps
Printer Buffer Memory	Not available	Not available	—	256 characters
Character Pitch/Spacing	10, 12, 15, proportional	10, 12, 15, proportional	10 or 12	10, 12, 15, proportion
Writing Line Width	9 1/2" to 12"	9 1/2" to 12"	9 1/2"	13.6"
Carriage Paper Width	14"	14"	—	15"
First Line Forms Advance	Standard	Standard	Standard	—
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Not available	Not available
GENERAL FEATURES				
Stored Format	With document	With document	Standard	With document
Default Format	Operator adjustable	Operator adjustable	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Limited
Menus and Prompts	Standard	Standard	Standard; menu bypass	Limited
Forms Input	Automatic	Automatic	Not available	Standard
Control Character Printout	Not available	Not available	Not available	Standard
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	4	4	4	7
Prioritizing	Standard on network	Standard on network	Not available	Not available
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Document title
System Security				
Operator log-on password	Std. on Level C & net.	Std. on Level C & net.	Not available	—
Document access password	Std. on Level C & net.	Std. on Level C & net.	Not available	—
No. of priority levels	Multi. on Lvl C & net.	Multi. on Lvl C & net.	Not applicable	—
Keylock	Not available	Not available	Not available	—
Other	Author I.D.	Author I.D.	Not available	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Auto, scan, variable hot zone, operator decision (auto on Lvl C & net.)	Auto scan, variable hot zone, operator decision (auto on Lvl C & net.)	Standard	Stored algorithm (standard) word wrap or manual
Auto Input Underlining	On net.—word/contin.	On net.—word/contin.	—	Word
Auto Centering	—	—	Standard	On page (standard)
REMARKS & OTHER FEATURES				
	Full DBMS	Full DBMS	'Begin & end document.	'Scrolls to 240 chars.
	¹ 12" diag. w/attr.,	¹ 12" diag. w/attr.,		
	15" diag. w/attr.,	15" diag. w/attr.		
	² 12" wo/attr.; 12"	² 12" wo/attr.; 12"		
	w/attr. & 15" prog. selectable.	w/attr. & 15" prog. selectable		
	³ Pg U & D, begin & end.	³ Pg U & D, begin & end		

Standalone Word Processing Systems

Compucorp	Compucorp	Compucorp	CPT Corporation	COMPANY
Omega 795	Omega 799	Simplifier 700 Series	8505	MODEL
Standard During format & output ¹ Left, right—all pages Within doc.—two types W/wo optional decision	Standard During format & output ¹ Left, right—all pages Within doc.—two types W/wo optional decision	Standard Standard Standard Standard Standard	Standard On output Standard — Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Auto merge to document, screen, or printer. Also report formats & DBMS Text string	Auto merge to document, screen, or printer. Also report formats & DBMS Text string	Standard	Para. assembly stored w/keyboarded text	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Char., word, line, block	Char., word, line, block	Standard	By document, page, file, name or number, text key segments, char. string	Search Capability
Standard—single or global, hazy or exact match	Standard—single or global, hazy or exact match	Standard	Character, word, line, para., page, U & D Character or string, automatic, foreground	Delete Capability
Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Full disk sort, unlimited levels on single pass ² Standard—unlimited lvls.	Full disk sort, unlimited levels on single pass ² Standard—unlimited lvls.	Not available	114 fields, background	Auto File Select
Standard W/correction & optional hyphenation	Standard W/correction & optional hyphenation	Not available Not available	— —	Term Dictionary/Glossary Spelling Verification
Optional RS-232, TTY, 2980, 3780, 3275, to 9600 bps	Optional RS-232, TTY, 2980, 3780, 3275, to 9600 bps	Optional Optional	— —	COMMUNICATIONS Availability Protocols & Speed
Column & row verification auto table math, full funct. built-in calc. Standard	Column & row verification auto table math, full funct. built-in calc. Standard	Not available	Full-function	ARITHMETIC CAPABILITY
Optional on network Zebra, CP/M optional Basic, Fortran Basic CP/M applications library	Optional on network Zebra, CP/M optional Basic, Fortran Basic CP/M applications library	—	1 stored	KEYSTROKE STORAGE
Numerous, including tape cartridge for hard disk backup	Numerous, including tape cartridge for hard disk backup	Not available Zebra, CP/M Basic, Fortran Basic CP/M applications library	Not available CP/M 2.2 Not available Not available Financial planning and modeling, math Printers envelope & sheet feeders, Compupak for dp/wp interface	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
1983 USA	1983 USA	—		PERIPHERALS
\$13,495 to \$19,495	\$22,995	June 1983 USA	December 1982 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
Available	Available	\$4,495	\$5,490	Rental
Available	Available	Standard	Not available	Lease
Standard	Standard	Standard	\$720/year	Maintenance
Standard Desktop unit, movable keyboard. Selectric or ASCII keyboard. Ext. disks opt. ¹ Also on headers & footers. ² DBMS files presorted.	Standard Desktop unit, movable keyboard. Selectric or ASCII keyboard. Ext. disks opt. ¹ Also on headers & footers. ² DBMS files presorted.	Standard	90 days Multilingual.	Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	CPT Corporation	CPT Corporation	CPT Corporation	CPT Corporation
MODEL	8510	8515	8520	8525
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer
Microprocessor Type	8080	8080	8080	8080
Memory Size	96KB	128KB	96KB	128KB
Storage Media	8" single diskette	8" single diskette	8" dual diskette	8" dual diskette
Storage Capacity	315KB/diskette	315KB/diskette	315KB/diskette	315KB/diskette
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT
Color	Black on white	Black on white	Black on white	Black on white
Display Buffer Memory	12K characters	12K characters	12K characters	12K characters
Format & Capacity	54 lines by 80 chars. ¹	54 lines by 80 chars. ¹	54 lines by 80 chars. ¹	54 lines by 80 chars. ¹
Total Characters	4320 characters	4320 characters	4320 characters	4320 characters
Character Generation	7 x 9 dot matrix	7 x 9 dot matrix	7 x 9 dot matrix	7 x 9 dot matrix
Cursor Positioning	Left and right	Left and right	Left and right	Left and right
Vertical Scrolling	Virtual to 12KB	Virtual to 12KB	Virtual to 12KB	Virtual to 12KB
Horizontal Scrolling	To 240 characters	To 240 characters	To 240 characters	To 240 characters
Display Highlighting	Not available	Not available	Not available	Not available
Character Size Control	Not available	Not available	Not available	Not available
Character Pitch Display	Not available	Not available	Not available	Not available
Character Spacing Display	Not available	Not available	Not available	Not available
Line Spacing Display	Single, double, triple	Single, double, triple	Single, double, triple	Single, double, triple
Line Justify Display	Not available	Not available	Not available	Not available
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard (hidden char.)	Standard (hidden char.)	Standard (hidden char.)	Standard (hidden char.)
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Daisywheel; 45-cps ²	Daisywheel; 45-cps ²	Daisywheel; 45-cps ²	Daisywheel; 45-cps ²
Printer Buffer Memory	256 characters	256 characters	256 characters	256 characters
Character Pitch/Spacing	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, 15, proportional
Writing Line Width	13.6"	13.6"	13.6"	13.6"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Optional ³	Optional ³	Optional ³	Optional ³
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/document	W/document	W/document	W/document
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Limited	Limited	Limited	Limited
Menus and Prompts	Limited	Limited	Limited	Limited
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	7	7	7	7
Prioritizing	Not available	Not available	Not available	Not available
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Document title	Document title	Document title	Document title
System Security	Via SRS 40	Via SRS 40/45	Via SRS 40	Via SRS 40/45
Operator log-on password	—	—	—	—
Document access password	With WordPak II, SRS 40	W/WordPak II,SRS40/45	With WordPak II, SRS 40	W/WordPak II,SRS40/45
No. of priority levels	—	—	—	—
Keylock	With WordPak II	With WordPak II	With WordPak II	With WordPak II
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Stored algorithm (standard), word wrap or manual	Stored algorithm (standard), word wrap or manual	Stored algorithm (standard), word wrap or manual	Stored algorithm (standard), word wrap or manual
Auto Input Underlining	Word	Word	Word	Word
Auto Centering	On page (standard)	On page (standard)	On page (standard)	On page (standard)
REMARKS & OTHER FEATURES				
	¹ Scrolls to 240 chars.	¹ Scrolls to 240 char.	¹ Scrolls to 240 chars.	¹ Scrolls to 240 chars.
	² Rotary 6 (wide carriage)	² Rotary 6 (wide carriage)	² Rotary 6 (wide carriage)	² Rotary 6 (wide carriage)
	Rotary 7 (dual print lead) Matrix 1 (100-cps & 160-cps) Page Printer 1 (12 pages per min.).	Rotary 7 (dual print lead) Matrix 1 (100-cps & 160-cps) Page Printer 1 (12 pages per min.).	Rotary 7 (dual print lead) Matrix 1 (100-cps & 160-cps) Page Printer 1 (12 pages per min.).	Rotary 7 (dual print lead) Matrix 1 (100-cps & 160-cps) Page Printer 1 (12 pages per min.).
	³ Matrix 1.	³ Matrix 1.	³ Matrix 1.	³ Matrix 1.

Standalone Word Processing Systems

CPT Corporation	CPT Corporation	CPT Corporation	CPT Corporation	COMPANY
8510	8515	8520	8525	MODEL
Standard Output Standard — Standard	Standard Output Standard Optional Standard	Standard Output Standard — Standard	Standard Output Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Para. assembly stored w/keyboarded text	Para. assembly stored w/keyboarded text	Para. assembly stored w/keyboarded text	Para. assembly stored w/keyboarded text	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By doc. or page, file name or number, text key segments, char. string	By doc. or page, file name or number, text key segments, char. string	By doc. or page, file name or number, text key segments char. string	By doc. or page, file name or number, text key segments, char. string	Search Capability
C, W, L, P, page, U & D	C, W, L, P, page, U & D	C, W, L, P, page, U & D	C, W, L, P, page, U & D	Delete Capability
Character or string, automatic, foreground	Character or string, automatic, foreground	Character or string, automatic, foreground	Character or string, automatic, foreground, background multiple string option	Global Search & Replace
Standard Standard Standard Standard Standard Screen (std), disk option	Standard Standard Standard Standard Standard Screen, disk option	Standard Standard Standard Standard Standard Screen (std); disk option	Standard Standard Standard Standard Standard Screen (std.);disk option	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
114 fields, background	114 fields, background	114 fields, background	114 fields, background	Auto File Select
Standard Optional	Standard Standard ¹	Standard Optional	Standard Standard ¹	Term Dictionary/Glossary Spelling Verification
Optional TTY 110-1200 bps; 2780, 2770/3780, 3270, 1200-2400 bps Full-function	Optional TTY 110-1200 bps; 2780, 2770/3780, 3270, 1200-2400 bps Full-function	Optional TTY 110-1200 bps; 2780, 2770/3780, 3270, 1200-2400 bps Full-function	Optional TTY 110-1200 bps; 2780, 2770/3780, 3270, 1200-2400 bps Full-function	COMMUNICATIONS Availability Protocols & Speed
Up to 36 stored or 1024 keystrokes	Up to 36 stored or 1024 keystrokes	Up to 36 stored or 1024 keystrokes	Up to 36 stored or 1024 keystrokes	ARITHMETIC CAPABILITY
Not available CP/M, 2.2 Not available Not available Financial planning & modeling ¹ Printers, sheet & enve- lope feeders, mass storage, Compupak for dp/wp interface, extended storage units	Not available CP/M Not available Not available Financial planning & modeling ² Printers, sheet & enve- lope feeders, mass storage, Compupak for dp/wp interface, extended storage units	Not available CP/M, 2.2 Basic, Fortran, Cobol Basic 80 Gen. acct. G/L, A/R, A/P, Payroll, INV ¹ Printers, sheet & enve- lope feeders, mass storage, Compupak for dp/wp interface, extended storage units	Not available CP/M, 2.2 Basic, Fortran, Cobol Basic 80 Gen. acct. G/L, A/R, A/P Payroll, INV ² Printers, sheet & enve- lope feeders, mass storage, Compupak for dp/wp interface, extended storage units	KEYSTROKE STORAGE
August 1982 USA	August 1982 USA	August 1982 USA	August 1982 USA	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
\$6,990 ²	\$8,090 ³	\$8,090 (w/o printer)	\$9,190, w/o printer	PERIPHERALS
\$343/(1-yr.) \$302/(2-yr.) 3rd party	\$444 (1-yr.) \$390 (2-yr.) 3rd party	\$444 (1-yr.) \$390 (2-yr.) 3rd party only	\$497 (1-yr.) \$437 (2-yr.) 3rd party only	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$720/yr.	\$780/yr.	\$840/yr.	\$900/yr.	Rental
90 days Multilingual. ¹ Complete line of CPT Appl Soft avail. ² Without printer; user is able to multiplex up to 4 consoles.	90 days Multilingual. ¹ Spelling Checker (std.). ² Complete line of CPT Appl Soft avail. ³ Without printer user is able to multiplex up to 4 consoles.	90 days Multilingual. ¹ Job budget, fin., anal- ysis, M/sort, job cost, financial planning & modeling, proj. mgmt. & professional billing system.	90 days ¹ Spell. check. (std.) CPT Spell. Verifier (opt.). ² And JC, JB, modeling & proj. sched., job budget, FIN., Analysis, M/sort, job cost, Fin. planning & modeling, proj. mgmt.	Lease
				Maintenance
				Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	CPT Corporation	CPT Corporation	CPT Corporation	Digital Equipment Corporation
MODEL	8530	8535	Phoenix	DECmate II
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT/diskette console, printer	Keyboard/CRT/diskette console, printer	Keyboard, display, microframe w/2 drives	Keyboard/CRT/diskette
Microprocessor Type	8080	8080	8085 & 8086	LSI 6120
Memory Size	224KB	224KB	512K characters	96KB
Storage Media	8" single diskette	8" dual diskette	Diskette; SS/SD, DS/DD	Double-density dual 5
Storage Capacity	315KB/diskette	315KB/diskette	312KB; 1.2MB per disk	400K chars./diskette
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	High resolution CRT	12" diagonal CRT
Color	Black on white	Black on white	Black on white	Wht/ambr/grn on blk
Display Buffer Memory	12K characters	12K characters	12K characters	2K characters
Format & Capacity	54 lines by 80 chars. ¹	54 lines by 80 chars. ¹	58 lines by 80 chars.	24 lines by 80 chars.
Total Characters	4320 characters	4320 characters	Scrolls to 240	1920 characters
Character Generation	7 x 9 dot matrix	7 x 9 dot matrix	7 x 9 dot matrix	7 x 9 dot matrix
Cursor Positioning	Left and right	Left and right	L, R & Page U, D	L, R, along fixed line
Vertical Scrolling	Page	Page	To screen limit (12Kchs)	By line, controlled
Horizontal Scrolling	Segmented	Segmented	To 240 characters	Standard ²
Display Highlighting	Not available	Not available	Bold	Bold, blinking, underline
Character Size Control	Not available	Not available	—	Standard
Character Pitch Display	Not available	Not available	—	Not available
Character Spacing Display	Not available	Not available	—	Not available
Line Spacing Display	Single, double, triple	Single, double, triple	Standard (1, 2 & 3)	Standard
Line Justify Display	Not available	Not available	Standard	Not available
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Standard	Standard	Code only
Multi-Column Page Display	Standard	Standard	Standard	Manual
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Daisywheel; 45-cps ²	Daisywheel, 45-cps ²	Daisywheel, 45-cps ¹	Daisywheel, 32-cps
Printer Buffer Memory	256 characters	256 characters	—	256 characters
Character Pitch/Spacing	10,12,15, proportional	10,12,15, proportional	10,12,15, proportional	Variable
Writing Line Width	13.6"	13.6"	13.6"	13.2"
Carriage Paper Width	15"	15"	14"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Optional ³	Optional ³	Matrix I only	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/document	W/document	W/doc. or on control pg.	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Limited	Limited	Standard	Displays all oper. opts.
Menus and Prompts	Limited	Limited	Not available	Standard (w/menu byp)
Forms Input	Standard	Standard	Standard	With list processing
Control Character Printout	Standard	Standard	Standard	With print screen
Printout Queuing	Standard	Standard	Standard	8-document list
No. of Pages/Documents	7	7	7	Variable
Prioritizing	Not available	Not available	First in; first out	—
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Document title	Document title	Op. assnd; to 240 chars.	Standard
System Security	W/WordPak II, SRS 40/45	W/WordPak II, SRS 40/45	—	Optional
Operator log-on password	Via ODS	Via ODS	—	Optional
Document access password	Via SRS 40/45	Via SRS 40/45	—	Optional
No. of priority levels	—	—	—	—
Keylock	With WordPak II	With WordPak II	—	—
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Stored algorithm (standard)	Stored algorithm (standard)	Auto. on algorithm w/optional word wrap or manual	Manual w/Hot Zone
Auto Input Underlining	Word	Word	Standard (word)	Word/continuous
Auto Centering	On page (standard)	On page (standard)	Standard on page	Standard
REMARKS & OTHER FEATURES				
	¹ Scrolls to 240 chars.	¹ Scrolls to 240 chars.	¹ Matrix I to 160 cps;	¹ Or 14 rows x 132 ch
	² Rotary 6 (wide carriage)	² Rotary 6 (wide carriage)	Page Printer 1 to 12	² 132 before horizontal
	Rotary 7 (dual print lead)	Rotary 7 (dual print lead)	pages per min.	scroll.
	³ Matrix 1 (100-cps & 160-cps) Page Printer 1.	³ Matrix 1 (100 cps & 160 cps) Page Printer 1 (12 pages per min.).		
		³ Matrix 1.		

Standalone Word Processing Systems

CPT Corporation	CPT Corporation	CPT Corporation	Digital Equipment Corporation	COMPANY
8530	8535	Phoenix	DECmate II	MODEL
Standard Output Standard Standard Standard	Standard Output Standard Standard Standard	Standard Standard (on output) Standard (left & right) Standard Standard	Standard Standard Standard Not available Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Para. assembly stored w/keyboarded text	Para. assembly stored w/keyboarded text	Standard	Recorded text merged lists, boilerplate or keyboarded text	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By doc. or page, file name or number, text key segments, char. string	By doc. or page, file name or number, text key segments, char. string	By doc. title, pg, line, paragraph, word, char.	C, W, L, phrase, page	Search Capability
C, W, L, P, page, U & D	C, W, L, P, page, U & D	W, L, P, page, range of pages or disk	C, W, L, para, page, doc.	Delete Capability
Character or string, automatic, foreground, background multiple string option	Character or string, automatic, foreground, background multiple string option	25-char. strings, unlimited in background. Automatic or semi-automatic	50-char., 1 string automatic, foreground	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy
Standard	Standard	Standard	User-defined func. keys	Column Move/Delete
Standard	Standard	Standard	Standard	Auto Repagination
Standard	Standard	Standard	Standard	Auto Renumbering
Screen (std.); disk option	Screen (std.); disk option	Standard	Manual	Auto Widow/Orphan Adjust
114 fields, background	114 fields, background	Standard, background & foreground. Approx. 80 fields	With list processing, 12 levels	Auto File Sort
Standard	Standard	Optional	With list processing, 20 levels, foreground	Auto File Select
Standard ¹	Standard ¹	Optional	Standard	Term Dictionary/Glossary
Optional	Optional	Hardware standard	Standard	Spelling Verification
TTY, 110-1200 bps; 2780, 2770/3780, 3270, 1200-2400 bps	TTY, 110-1200 bps; 2780, 2770/3780, 3270, 1200-2400 bps	TTY/3270/2770/3780/2780	1 standard port Async., bit-, byte-synch. 50-9600 bps	COMMUNICATIONS Availability Protocols & Speed
Full-function	Full-function	MathPak/Shortcut optional; full-function with decision making capabl. Standard (enhanced with Shortcut)	Editor or list processing, 4 functions	ARITHMETIC CAPABILITY
Up to 36 stored or 1024 keystrokes	Up to 36 stored or 1024 keystrokes	—	UDK, standard	KEYSTROKE STORAGE
Not available	Not available	CP/M and others	Not available	EDP CAPABILITY
CP/M, 2.2	CP/M, 2.2	Various	CP/M option, COS 310	Multiprogramming
Basic, Fortran, Cobol	Basic, Fortran, Cobol	Various	Dibol	Micro operating systems
Basic 80	Basic 80	Various	MBasic, RMCobol	Compilers
Gen. acct., G/L, A/R, A/P, Payroll, INV ²	Gen. acct., G/L, A/R, A/P, Payroll, INV ²	Gen. acct., G/L, A/R, A/P, Payroll, INV, JC ¹	AR/AP, gen. led., PR invent., invoicing, Multiplan	Interpreters
Printers, sheet & envelope feeders, mass storage, Compupak for dp/wp interface, extended storage units	Printers, sheet & envelope feeders, mass storage, Compupak for dp/wp interface, extended storage units	Printers, sheet & envelope feeders, mass storage, Compupak for dp/wp interface, extended storage units, six per platter	OCR, line printers, photocomposition	Applications Software
February 1984	February 1984	December 1983	September 1982	PERIPHERALS
USA	USA	USA	USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
\$9,190	\$9,990	Depends on configuration	\$3,245	PRICING & TERMS Purchase
Through dealer	Through dealer	Available	\$6,045 w/LQP	Rental
Through dealer	Through dealer	Available	Not available at present	Lease
Through dealer	Through dealer	Available	—	Maintenance
90 days	90 days	90 days	\$78 w/LQP	Warranty & Support
¹ Spell. check. (std.) CPT Spell. Verifier (opt.)	¹ Spell. check. (std.) CPT Spell. Verifier (opt.)	Support and prices may vary with dealers/distributors.	90 days	REMARKS & OTHER FEATURES
² And JC, JB, modeling & proj. sched., job budget, FIN., Analysis, M/sort, job cost, Fin. planning & modeling, proj. mgmt.	² And JC, JB, modeling & proj. sched., job budget, FIN., Analysis, M/sort, job cost, Fin. planning & modeling, proj. mgmt.	¹ JB, modeling and proj. sched., job budget, FIN, Analysis, M/sort, job cost, Fin. planning.	Computer based instruction. Customer installable.	

Standalone Word Processing Systems

COMPANY	Exxon Office Systems	Interactive Computer Services, Inc.	Interactive Computer Services, Inc.	International Business Machines
MODEL	500 Series Models 510, 520, and 530	System 800 ¹	System 900 ¹	Displaywriter System
SYSTEM CONFIGURATION				
Configuration	CPU, CRT, keyboard, printer, diskette drive(s)	Keyboard/CRT, diskette console, printer	Keyboard/CRT, diskette console, printer	CRT, keyboard, electronics module, disk
Microprocessor Type	Z80	—	—	Intel 8086
Memory Size	64KB to 192KB	64KB, 128KB, 192KB	64KB, 128KB, 192KB	128KB to 448KB
Storage Media	5 1/4" diskette/disk	Dual diskette; fixed disk	Dual diskette; fixed disk	8" SSSD/8" DSDD
Storage Capacity	600KB diskette; up to 15MB hard disk	960KB/diskette expandable to 48MB	960KB/diskette expandable to 48MB	284KB/985KB
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	White on black	—	—	Green on black
Display Buffer Memory	Virtual	2K characters	2K characters	—
Format & Capacity	20 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	25 lines by 80 chars
Total Characters	1600 characters	—	—	—
Character Generation	9 x 11	7 x 9 dot matrix	7 x 9 dot matrix	8 x 16 dot matrix
Cursor Positioning	L, R, U, D	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H
Vertical Scrolling	Standard	Standard	Standard	Line/page
Horizontal Scrolling	Standard to 256 chars.	Not available	Not available	Segmented
Display Highlighting	Standard	Standard	Standard	Blinking/reverse video
Character Size Control	Not available	Standard	Standard	—
Character Pitch Display	Standard	Not available	Not available	Not available
Character Spacing Display	Not available	Not available	Not available	Not available
Line Spacing Display	Stand. via fmt mrks	Not available	Not available	Not available
Line Justify Display	Standard	Standard	Standard	Not available
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Not available	Not available	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Impact 35- & 50-cps ¹	Diablo daisy 45-cps ²	Diablo daisy 45-cps ²	IBM Selec. or daisy ²
Printer Buffer Memory	—	—	—	—
Character Pitch/Spacing	10, 12, 15, proportional	To 16.7	To 16.7	10, 12, 15 psm
Writing Line Width	13", 19"	13"	13"	12.5" ² ; 13.2" ³
Carriage Paper Width	14", 15", 19.2"	15"	15"	15" ² ; 15.4" ³
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard ³
Simultaneous Input/Output	Standard	Multi-user option	Multiuser option	Standard
GENERAL FEATURES				
Stored Format	Standard	Standard	Standard	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	2 menus; menu bypass	Standard	Standard	Menu, bypass
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Not available	Standard	Standard	Standard
Printout Queuing	Standard	Not available	Not available	Standard
No. of Pages/Documents	Five documents	Optional	Optional	Limited to media
Prioritizing	Operator control	—	—	Not available
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	—	—	Standard
Docu. Title/Docu. History	Standard	—	—	Standard/Not available
System Security	Standard	Standard	Standard	—
Operator log-on password	None	Standard	Standard	Not available
Document access password	None	—	—	Not available
No. of priority levels	None	—	—	Not available
Keylock	None	Optional	Optional	Standard
Other	Diskette, write protect	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Not available	Not available	Std comma, colon, per
Hyphenation	Auto. scan w/hot zone, operator decision	Manual; discretionary hyphens	Manual; discretionary hyphens	Prompted with adjust Hot Zone
Auto Input Underlining	Standard	Standard	Standard	Standard
Auto Centering	Standard	Standard	Standard	Standard
REMARKS & OTHER FEATURES	1Ink jet, 60- & 90-cps; wide printer, 40-cps.	¹ Marketed in the USA exclusively by Inter. Comp. Sys.; mfr. by MCM. ² Additional printers avail.	¹ Mfr. by MCM. ² 180-cps dot matrix printer, 200-cps multi-font dot matrix printer & 300-lpm bi-directional line printers also avail.	¹ Opt. 66 lines x 100 chars. ² Selectric, 15.5-cps; daisy, 40- or 60-cps w/ w/o env. feeder. ³ IBM printwheel printer 10, 12, proportional.

Standalone Word Processing Systems

Exxon Office Systems	Interactive Computer Services, Inc.	Interactive Computer Services, Inc.	International Business Machines	COMPANY
500 Series Models 510, 520, and 530	System 800	System 900	Displaywriter System	MODEL
Standard Standard Standard Standard Standard	Standard Standard Standard Not available Standard	Standard Standard Standard Not available Standard	Standard Standard Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Págination
Automatic merge to document and/or printer	Stored text assembled & merged w/keyboarded text	Stored text assembled & merged w/keyboarded text	Standard	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By cursor and char. string, page no., format marker, next/prev. page, beg./end document	By document & page no., & file name; Also by character string	By document & page no., & file name. Also by character string	Standard; 60-char.; char. string or page	Search Capability
Character, line, block, document	C, W, L, S, P, or specified block	C, W, L, S, P, or specified block	Text key segments, block, pg.	Delete Capability
40 char. single or global	Standard—with auto replace or verify	Standard—with auto replace or verify	60-char; 3 simultaneous strings; auto & selective; foreground	Global Search & Replace
Standard Standard Standard Standard Standard	Standard Not available Standard Not available Not available Standard	Standard Not available Standard — Not available Standard	Standard Standard Standard Standard Standard Disk, 5 levels	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Standard; oper. adjust. Standard; model 520, 530	Standard	Standard	Disk, virtually unlimited	Auto File Select
Standard Standard	Not available Not available	Not available Not available	Store, recall, edit 50,000 words & 4500 char. suppl.	Term Dictionary/Glossary Spelling Verification
Optional Async TTY, RS-232, 2780, 3780, 3270 ¹	Optional ASCII, 2780, 3780, 3270	Optional ASCII, 2780, 3780, 3270	Optional TTY, 110 to 1200 bps; BSC 2770, 2780/3780; 3270 SNA, 600 to 2400 bps 4-function, column, row, verification	COMMUNICATIONS Availability Protocols & Speed
Standard model 520, 530 4-func. math, col/row verification Standard	Full computer capability and database mgmt. —	Full computer capability and database mgmt. —	Standard	ARITHMETIC CAPABILITY
CP/M CP/M CP/M CP/M CP/M, Legal	Standard Star & CP/M Basic — Full accounting, inventory, financial modeling ¹ 300 lpm bidirectional line printer, punch card reader, RS-232 devices, mark sense reader, 180-cps and 200-cps multi-font dot matrix printers ²	Standard Star & CP/M Basic — Full accounting, inventory, financial modeling ¹ Line printer, punch card reader, RS-232 devices ²	Not available Not available Not available Not available Not available	KEYSTROKE STORAGE
Communications, forms tractor, dual sheet feeder, printer sharing, ink jet printer, hard disk, sheet/envelope feeder, CP/M	—	—	IBM mag card reader/recorder. Optional software includes Electronic Document Dist. (accesses DISOSS/370 ver. 3), 3277 Device Emulation/Document Transfer ¹	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
October 1981 USA	November 1976 USA	January 1979 USA	January 1981 USA	PERIPHERALS
\$6,295/510; \$8,450/520; \$11,390/530 ² \$404/510; \$545/520; \$881/530 Available upon request	\$5,000 and up Available From \$120/mo. (5-yr.)	\$8,000 and up Available From \$200/mo. (5-yr.)	\$4,990 and up \$308 and up \$328 and up	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
Yr—\$954/510; \$1,170/520; \$1,612/530 —	Approx. 1% per mo. 90 dys pts & lr; 1 dy trn ¹ Mailing list/list maint., cost acct. & others. ² Also mark sense reader.	Approx. 1% per mo. 90 dys pts & lr; 1 dy trn ¹ Mailing list/list maint., cost acct. & others. ² Also mark sense reader.	— 90 days ¹ 3277 DE/DT supports Displaywriter doc. interchange w/IBM host computer. ² 800 # for central problem determination by system support center.	Rental Lease Maintenance
¹ Using 3rd party protocol converter supports 3270 emulation SDLC and bisync. ² Depends on configuration.	—	—	—	Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Lanier Business Products, Inc.	Lanier Business Products, Inc.	Lexocorp	Lexocorp
MODEL	EZ-1	EZ-2	Lexoriter Series III, Model 1	Lexoriter Series III, Model 2
SYSTEM CONFIGURATION				
Configuration	Modular	Modular twin station	CRT/CPU/diskette drv./text editing keypad	CRT/CPU/diskette drv./text editing keypad
Microprocessor Type	Z80A	Z80A	Z80A keypad	Z80A keypad
Memory Size	96KB to 256KB	256KB	64KB	64KB
Storage Media	5 1/4" diskette; hard disk	5 1/4" diskette; hard disk	Single diskette	Dual diskette
Storage Capacity	650KB to 10MB	650KB to 10MB	160KB standard, 320KB maximum opt./disk	160KB standard, 320KB maximum opt./disk
DISPLAY FEATURES				
Screen Size & Type	12" CRT	12" CRT	12" diagonal CRT	12" diagonal CRT
Color	Green on charcoal	Green on charcoal	Black on white	Black on white
Display Buffer Memory	12,240 chars. temp mode	12,240 chars. temp mode	33K characters	33K characters
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	7 x 9 dot matrix	7 x 9 dot matrix	8 x 10 dot matrix	8 x 10 dot matrix
Cursor Positioning	13 positions	13 positions	L, R, U, D, H, beg./end ¹	L, R, U, D, H, beg./end ¹
Vertical Scrolling	Virtual	Virtual	Virtual, 9 spd, forwd/rev	Virtual, 9 spd, forwd/rev
Horizontal Scrolling	144 chars./254 (CP/M)	144 chars./254 (CP/M)	To 8000 characters ²	To 8000 characters ²
Display Highlighting	Standard	Standard	Standard	Standard
Character Size Control	None	None	Not available	Not available
Character Pitch Display	Format display	Format display	Code	Code
Character Spacing Display	Format display	Format display	Code	Code
Line Spacing Display	Format display	Format display	Code	Code
Line Justify Display	Format display	Format display	Code	Code
Underscore Display	Single & double	Single & double	Code	Code
Sub/Superscript Display	Code display	Code display	Code	Code
Multi-Column Page Display	Standard	Standard	Code	Code
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Impact 27- to 45-cps ¹	Impact 27- to 45-cps ¹	Elect. typwrtr 17/20-cps	Elect. typwrtr 17/20-cps
Printer Buffer Memory	Key-to-disk to print	Key-to-disk to print	—	—
Character Pitch/Spacing	10, 12, 15, 20	10, 12, 15, 20	10, 12, 15	10, 12, 15
Writing Line Width	Impact 14"; matrix 132	Impact 14"; matrix 132	13"	13"
Carriage Paper Width	Impact 16.5"; matrix 132	Impact 16.5"; matrix 132	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	—	—
GENERAL FEATURES				
Stored Format	Standard	Standard	Optional	Optional
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Function/command	Function/command	Extensive	Extensive
Menus and Prompts	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	—	—
Control Character Printout	None	None	Standard	Standard
Printout Queuing	Elec. Mail option	Elec. Mail option	Optional	Optional
No. of Pages/Documents	Index report	Index report	Optional	Optional
Prioritizing	Elec. Mail option	Elec. Mail option	Not available	Not available
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Title, description	Title, description	Stored w/document	Stored w/document
System Security	Standard	Standard	Not available	Not available
Operator log-on password	None	None	—	—
Document access password	Standard	Standard	—	—
No. of priority levels	One	One	—	—
Keylock	None	None	—	—
Other	None	None	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Standard (scan)	Standard (scan)	Manual w/hot zone	Manual w/hot zone
Auto Input Underlining	Standard & double	Standard and double	Continuous	Continuous
Auto Centering	Standard	Standard	Page/column	Page/column
REMARKS & OTHER FEATURES				
	¹ Dot matrix 80- to 150-cps.	¹ Dot matrix 80- to 150-cps.	¹ Document, beg./end line. ² Wide doc. utility (495).	¹ Document, beg./end line. ² Wide doc. utility (495)

Standalone Word Processing Systems

Lanier Business Products, Inc.	Lanier Business Products, Inc.	Lexocorp	Lexocorp	COMPANY
EZ-1	EZ-2	Lexoriter Series III, Model 1	Lexoriter Series III, Model 2	MODEL
Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	1 to 5 On output Headers Not available Standard	1 to 5 On output Headers Not available Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Standard; single, multiple	Standard; single, multiple	Standard; 64-character string	Standard; 64-character string	Search Capability
Standard	Standard	Char., word, line, end of line, block	Char., word, line, end of line, block	Delete Capability
Standard	Standard	Standard; 64-character replace or multi-replace	Standard; 64-character replace or multi-replace	Global Search & Replace
Standard Standard Standard Standard Standard DataManager	Standard Standard Standard Standard Standard DataManager	Standard to 33,000 chars. Manual Standard Standard Manual Optional	Standard to 33,000 chars. Manual Standard Standard Manual Optional	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
DataManager	DataManager	Optional	Optional	Auto File Select
Standard EZ-Spell (88,000 wds) 3000 user dictionary	Standard EZ-Spell (88,000 wds); 3000 custom words	— Optional	— Optional	Term Dictionary/Glossary Spelling Verification
Optional TTY-ASCII, 2400 bps; 3780, 9600 bps; 3270/ SNA, 9600 bps ¹ 4-function & percent; ten-key pad	Optional TTY-ASCII, 2400 bps; 3780, 9600 bps; 3270/ SNA, 9600 bps ¹ 4-function & percent; ten-key pad	Optional Asynch., ASCII, TTY 150 to 2400 bps	Optional Asynch., ASCII, TTY 150 to 2400 bps	COMMUNICATIONS Availability Protocols & Speed
EZ-Task	EZ-Task	Standard	Standard	ARITHMETIC CAPABILITY
DataMgr, LBB; CP/M-COS CP/M MPL, C-compiler Basic CP/M, Legal, Medical, Insurance, Bus. Basic Diablo 630, Qume, Auto Feed feeders, inter- face to intelligent printers	DataMgr, LBB; CP/M-COS CP/M MPL, C-compiler Basic CP/M, Legal, Medical, Insurance, Bus. Basic Diablo 630, Qume, Auto Feed feeders, interface to intelligent printers.	Optional (395) CP/M Basic, Fortr, Cob, Pasc. Basic CP/M compatible High speed printer interface	Optional (395) CP/M Basic, Fortr, Cob, Pasc. Basic CP/M compatible High speed printer interface	KEYSTROKE STORAGE EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
September 1981 USA	June 1983 USA	November 1982 USA	November 1982 USA	PERIPHERALS
\$2,400 and up	\$7,795 and up	\$1,995 w/WP software, letter merge, phr. file Optional w/dealer	\$2,495 w/WP software, letter merge, phr. file Optional w/dealer	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
Available	Available	Optional w/dealer	Optional w/dealer	Rental
Available	Available	Optional w/dealer	Optional w/dealer	Lease
Available	Available	Optional w/dealer	Optional w/dealer	Maintenance
90 days Can become a network station connected to the system 5000. 13270/Bisync, 9600 bps; VT-52, VT-100, DISOSS (TBA)	90 days Can become a network station(s) connected to the System 5000. 13270/Bisync, 9600 bps; VT-52, VT-100, DISOSS (TBA)	90 days Optional green screen and function keypad; decimal tab; 800 dealer support hotline. 1W/wide document utility.	90 days Optional green screen and function keypad; decimal tab; 800 dealer support hotline. 1W/wide document utility.	Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Megadata Corporation	Megadata Corporation	Megadata Corporation	NBI Incorporated
MODEL	2001	700 RTE/DD	Series 8000	OASys 4000S
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT; diskette console, printer	Keyboard/CRT, dual drive disk., printer	Keyboard/CRT, disk console, ltr. quality ptr.	Console/CRT/keybo disk drive, printer
Microprocessor Type	12-Bit	12-Bit	MC68000; 16-bit	Motorola 68000
Memory Size	64KB	64KB	64KB to 256KB	64KB
Storage Media	Dual diskette	Dual mini diskettes	Dual diskette	8" diskettes
Storage Capacity	245KB/diskette	700KB/diskette	1MB	100 pgs. SS/SD; 200 SS/DD; 400 pgs. DS
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT	14" diagonal CRT
Color	Green on black	Green on black	Green on black	Wht/grn grn/blk amt
Display Buffer Memory	6K characters	6K characters	—	—
Format & Capacity	20 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	25 lines by 80 chars
Total Characters	1600 characters	1920 characters	1920 characters	2000 characters
Character Generation	8 x 12 dot matrix	8 x 12 dot matrix	8 x 10 dot matrix	9 x 16 dot matrix
Cursor Positioning	L, R, U, D, H	L, R, U, D, H	U, D, L, R, H	L,R,U,D,N or P pg, to
Vertical Scrolling	Standard	Standard	Standard	Line/page/virtual
Horizontal Scrolling	Not available	Not available	Standard	To 238 characters
Display Highlighting	Strike-through	Strike-through	Standard	Reverse video
Character Size Control	Not available	Not available	Not available	Not available
Character Pitch Display	Not available	Not available	Code	Dis. true line endings
Character Spacing Display	Not available	Not available	Code	Dis. true line endings
Line Spacing Display	Not available	Not available	Code	Displays line count
Line Justify Display	Not available	Not available	Code	Displays line end
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Codes only	Code only	Codes only	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	NEC thimble 55-cps	NEC thimble, 55-cps	NEC thimble, 55-cps	35-cps proportional
Printer Buffer Memory	—	—	—	—
Character Pitch/Spacing	10, 12, 15	10, 12, 15	10, 12, 15	10, 12, 15, proportio
Writing Line Width	13"	13"	13"	13.2"
Carriage Paper Width	13"	15"	13"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/document	W/document	Standard	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Menu bypass
Menus and Prompts	Standard	Standard	Standard	Opt., auto or manual
Forms Input	Optional	Optional	Optional	Not available
Control Character Printout	Not available	Not available	Not available	Standard
Printout Queuing	Standard	Standard	Standard	Unlimited # pg./1 doc
No. of Pages/Documents	8 doc. std.	8 doc. std.	8 doc. std.	Standard
Prioritizing	Not available	Not available	Not available	Standard via directorie
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Doc. title/full history
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Optional	Optional	Optional	Standard up to 8 char
Operator log-on password	Optional	Optional	Optional	Standard
Document access password	Optional	Optional	Optional	3 levels
No. of priority levels	Optional	Optional	Optional	Not available
Keylock	Optional	Optional	Optional	Not available
Other	Customer specified	Customer specified	Optional	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Manual w/hot zone	Manual w/hot zone	Hot zone	System scan w/adjust hot zone
Auto Input Underlining	Standard	Standard	Not available	Standard continuous
Auto Centering	Page	On page	Standard by page	Std. on pg./within col
REMARKS & OTHER FEATURES			Multibus®-compatible system, remote keyboard, monitor, and controller.	Auto outline and para. numbering. Opt. 55-, 40-cps prtrs., wide an twin track prtrs. Multi. wkst. prtr. intf. avail.

Standalone Word Processing Systems

Megadata Corporation	Megadata Corporation	Megadata Corporation	NBI Incorporated	COMPANY
2001	700 RTE/DD	Series 8000	OASys 4000S	MODEL
Standard During output Headers only, left Not available Standard	Standard During output Headers only, left Not available Standard	Standard Standard Standard Standard Standard	Standard Std./input & output Std.; alter. left/right Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Standard	Standard	Doc. assembly/merge; para assembly stored w/keyboarded text Segments; char. string up to 77 chars.; page no.; doc title	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
80-character string	80-character string	Standard; 80-char.		Search Capability
C, W, S, P, block	C, W, S, P, block	C, W, S, P, block, col.	Char., word, line, block, document, column 77 chars. per string; 1 string at time w/sepa- rate passes; auto.; selective; foreground	Delete Capability
Standard; automatic 80- char. search replace argument (1 line)	Standard; automatic 80- char. search replace argument (1 line)	Standard; 160-char.		Global Search & Replace
Standard Not available Standard Standard Widow only Not available	Standard Not available Standard Standard Not available Not available	Standard Standard Standard Standard Optional	Standard Standard Standard Standard Opt. on disk, 32 levels	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Not available	Not available	Optional	Opt. 70 levels, 6 criteria foreground	Auto File Select
Not available Not available	Not available Not available	Not available Not available	Standard Not available	Term Dictionary/Glossary Spelling Verification
Optional Async., bisynch., sync. to 38.4 KB to 83 B ¹	Optional Async., bisynch., sync. to 38.4 KB to 83 B ¹	Optional Programmable	Optional Async—TTY, 2741, NBI/ NBI; bisyn—2780, 3780 NBI/NBI, 110-9600 bps ¹ Opt. col. & row veri- fication, full-function	COMMUNICATIONS Availability Protocols & Speed
With optional forms	With optional forms	—		ARITHMETIC CAPABILITY
Not available	Not available	—	Optional	KEYSTROKE STORAGE
Not available —	Not available —	Not available Unix	Not available CP/M SB-80	EDP CAPABILITY Multiprogramming Micro operating systems
Not available Not available Forms program	Not available Not available Forms program	Not available Not available Pkgs. for Unix	Not available Not available Opt. packages for stat/ math ² Sheetfeeder, forms tractor, 6 printer options	Compilers Interpreters Applications Software
TLX punch, hard disk, line printer, floppy disk	TLX punch, hard disk, line printer, floppy disk	Mag card reader, line printer, mag tape badge reader, paper tape/punch, light pen, serial printers		PERIPHERALS
January 1979 USA	February 1980 USA	May 1981 USA	April 1983 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
\$12,500	\$10,100	\$13,100 ¹	\$5,995 ³	PRICING & TERMS Purchase
Not available	Not available	—	Not applicable	Rental
3rd party	3rd party	3rd party	\$200	Lease
\$120/mo.	\$90/mo.	\$130/mo.	\$60	Maintenance
90 days; Mega. & 3rd pty ¹ 8A1, IBM 3780, 3275, 3271/77, 2260, 2740, V100 and 200, TTY, H2000, 83B2/3, 81D1, Honeywell, VIP 7700, Burroughs TC 500, others to customer specs.	90 days; Mega. & 3rd pty ¹ 8A1, IBM 3780, 3275, 3271/77, 2260, 2740, V100 and 200, TTY, H2000, 83B2/3, 81D1, Honeywell, VIP 7700, Burroughs TC 500, others to customer specs.	90 days ¹ Includes LQ printer, 55- cps, & dual disk drive.	90 days/MSR support ¹ Bisynch. 3270 commu- nications also available. ² Equations, records/forms proc.; stored keystrokes; adv. stored keystrokes. ³ System includes 1 SS/SD diskette drive.	Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	NCR Corporation	NCR Corporation	NCR Corporation	NCR Corporation
MODEL	WS-140	WS-150	WS-210	First Step
SYSTEM CONFIGURATION				
Configuration	CRT, keyboard, mini-diskette ¹	CRT, keyboard, mini-diskette ¹	CRT, keyboard, diskette, Winchester printer	CRT, keyboard, dual diskettes, printer
Microprocessor Type	Intel 8086	Intel 8086	Intel 8086	Intel 8085
Memory Size	256KB to 512KB	256KB to 512KB	256KB to 1024KB	64KB
Storage Media	Single 5 1/4" mini-diskette and Winchester disk	Single 5 1/4" mini-diskette and Winchester disk	8" diskette and Winchester disk	Dual 5 1/4" disk., double-sided, double-density
Storage Capacity	630KB/disk and 5MB Winchester	630KB/disk and 16MB Winchester	630KB/disk and 10-12MB Winchester	570KB, each diskette
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT	12" diagonal CRT
Color	Green on black	Green on black	Green on black	Green on black
Display Buffer Memory	Dynamic, 8K chars min	Dynamic, 8K chars min	Dynamic, 8K chars min	—
Format & Capacity	28 lines by 80 chars.	28 lines by 80 chars.	28 lines by 80 chars.	24 lines by 80 chars.
Total Characters	2240 characters	2240 characters	2240 characters	1920 characters
Character Generation	9 x 11 pixels	9 x 11 pixels	10 x 15 pixels	7 x 9 dot matrix
Cursor Positioning	L, R, U, D, beg./end doc ²	L, R, U, D, beg./end doc ²	L, R, U, D, beg./end doc ¹	L,R,U,D, last/first line
Vertical Scrolling	Line/page/virtual	Line/page/virtual	Line/page/virtual	Smooth line/page
Horizontal Scrolling	Segmented to 256 chars.	Segmented to 256 chars.	Segmented to 256 chars.	Segmented to 150 ch
Display Highlighting	Half intensity, rev. vid.	Half intensity, rev. vid.	Half intensity, rev. vid.	Reverse video
Character Size Control	Not available	Not available	Not available	—
Character Pitch Display	Standard	Standard	Standard	—
Character Spacing Display	Not available	Not available	Not available	—
Line Spacing Display	1, 1 1/2, 2, 3	1, 1 1/2, 2, 3	1, 1 1/2, 2, 3	—
Line Justify Display	Standard	Standard	Standard	—
Underscore Display	Standard	Standard	Standard	Reverse video
Sub/Superscript Display	Half intensity	Half intensity	Half intensity	—
Multi-Column Page Display	Statistical only	Statistical only	Statistical only	—
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	—
Format Statement Display	Standard/help funct. ³	Standard/help funct. ³	Standard/help funct. ²	Standard
PRINTER FEATURES				
Printer Type & Speed	Thimble, 20/33/55-cps	Thimble, 20/33/55-cps	Thimble, 20/33/55-cps	Dot matrix 120-cps ¹
Printer Buffer Memory	256 to 2K characters	256 to 2K characters	256 to 2K characters	256 to 2K characters
Character Pitch/Spacing	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, 15
Writing Line Width	13.6"	13.6"	13.6"	13.6"
Carriage Paper Width	16"	16"	16"	16"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Interword
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	Standard	Standard	Standard	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	—
Menus and Prompts	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Not available	Not available	Not available	—
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Limited to media	Limited to media	Limited to media	7 docs., 20 pgs. each
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard	Standard	Standard	—
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	Four	Four	Four	—
Keylock	—	—	—	—
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Scan w/operator decision (opt. auto via algorithm)	Scan w/operator decision (opt. auto via algorithm)	Scan w/operator decision (opt. auto via algorithm)	Standard
Auto Input Underlining	Standard	Standard	Standard	Standard
Auto Centering	Between margins, tabs	Between margins, tabs	Between margins, tabs	Standard
REMARKS & OTHER FEATURES	Up to 6 docs. displayed concurrently in windows, ind. scrolling in each. ¹ Winchester. ² Beg. pg, next/prev pg. ³ Displays additional.	Up to 6 docs. displayed concurrently in windows, ind. scrolling in each. ¹ Winchester. ² Beg. pg, next/prev pg. ³ Displays additional.	Up to 6 docs. displayed concurrently in windows, ind. scrolling in each. ¹ Beg. pg, next/prev pg. ² Displays additional.	¹ Thimble, 20/35/55-cps

Standalone Word Processing Systems

NCR Corporation	NCR Corporation	NCR Corporation	NCR Corporation	COMPANY
WS-140	WS-150	WS-210	First Step	MODEL
Standard Standard Standard Not available Standard	Standard Standard Standard Not available Standard	Standard Standard Standard Not available Standard	Standard Standard Standard Standard Manual	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Standard	Standard	Standard; multiple paragraphs, auto/letters also available Character string	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Global—go-to-page, find string	Global; go-to-page, find string	Global; go-to-page, find string		Search Capability
BS, C, W, L, P, S, block, page Standard	BS, C, W, L, P, S, block, page Standard	BS, C, W, L, P, S, block, page, Standard	C, W, L, P, page Manual, auto occurrence counter	Delete Capability Global Search & Replace
Std. within & bet. docs ¹ Statistics only Standard Standard Standard Optional; 10-lvl, alpha-numeric, ascending/desc. Optional; 9 criteria, range chk, conditional, complex select Optional Optional	Std.; within & bet. docs ¹ Statistics only Standard Standard Standard Optional; 10 lvl, alpha-numeric, ascending/desc. Optional; 9 criteria, range chk, conditional, complex select Optional Optional	Std.; within & bet. docs ¹ Statistics only Standard Standard Standard Optional; 10 lvl, alpha-numeric, ascending/desc. Optional; 9 criteria, range chk, conditional, complex select Optional Optional	Standard Statistics only Manual Standard Standard Optional Optional Optional	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort Auto File Select
Optional TTY, 300-1200, BSC 2780/3780, 2400-9600, 3270, 2400-9600 bps Row/column modeling	Optional TTY, 300-1200, BSC 2780/3780, 2400-9600, 3270, 2400-9600 bps Row/column modeling	Optional TTY, 300-1200, BSC 2780/3780, 2400-9600, 3270, 2400-9600 bps Row/column modeling	Optional Asynch. Optional—row & column modeling	COMMUNICATIONS Availability Protocols & Speed
Standard	Standard	Standard	—	ARITHMETIC CAPABILITY
TBA CP/M-86 Basic, Fortr, Cob, Pasc. Basic Financial modeling/ multiplan Forms tractor, single/ dual-bin sheet feeders, draft printer, wide carriage printer, modems, env. feeders, shared peripheral interface	TBA CP/M, 86 Basic, Fortr, Cob, Pasc. Basic Financial modeling/ multiplan Forms tractor, single/ dual-bin sheet feeders, draft printer, wide carriage printer, modems, env. feeders, shared peripheral interface	TBA CP/M, 86 Basic, Fortr, Cob, Pasc. Basic Financial modeling/ multiplan Forms tractor, single/ dual-bin sheet feeders, draft printer, wide carriage printer, modems, env. feeders, shared peripheral interface	— CP/M, 2.2 — Basic Financial Forms tractor, single/ dual-bins sheet feeders, draft printer	KEYSTROKE STORAGE EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
August 1982 USA	January 1983 USA	April 1982 USA	November 1982 USA	PERIPHERALS
\$7,195 and up	\$10,995 and up	\$17,190 (inc. 10 MB)	\$3,795	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$266/mo. (12-mo.) \$225/mo. (36-mo.) Available	\$408/mo. (12 mo.) \$348/mo. (36 mo.) Available	\$716/mo. (12 mo.) \$579/mo. (36 mo.) Available	\$253 Available	Rental
\$990/yr.	—	\$2,790/yr.	\$450/yr.	Lease
90 days, plus 800 no. ¹ With concurrent display of up to 6 doc files.	90 days, plus 800 no. ¹ With concurrent display of up to 6 doc. files.	90 days, plus 800 no. ¹ With concurrent display of up to 6 doc. files.	90 days, plus 800 no. Self-paced training.	Maintenance
				Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Ontel Corporation	Philips Information Systems, Inc.	Philips Information Systems, Inc.	Philips Information Systems, Inc.
MODEL	OP-1 WORD/6	2001/E	2002	Series 3000/Univers Workstation
SYSTEM CONFIGURATION				
Configuration	Key., CRT, printer, dskt. unit/mini disk./disk	Key, CRT, printer, single or dual diskette	CPU, 1-2 trmls, 1-2 prtrs, 1-2 drives	Keyboard, CPU, disk drive display
Microprocessor Type	8085	Z80A	Zilog Z80A	Multiple Z80A
Memory Size	64KB	128KB	128KB ¹ Winchester	64KB to 128KB
Storage Media	Disk, diskette, mini-diskette	Single or dual diskette	disk/8" diskette	5 1/4" disk/single side dual den &/or rigid
Storage Capacity	Up to 2.4MB/diskette; up to 96MB/disk	300KB/diskette	9-, 27- or 45MB disk/300KB diskette	300KB or 10MB
DISPLAY FEATURES				
Screen Size & Type	14" non-glare CRT	15" diagonal CRT	12" diagonal CRT	15" diagonal CRT
Color	Black on white ¹	Green on gray	Green on gray	Green on gray
Display Buffer Memory	7200 characters	8K characters	8K characters	8K characters
Format & Capacity	25 lines by 80 chars.	31 lines by 80 chars.	31 lines by 80 chars.	31 lines by 80 chars
Total Characters	1920 characters	2240 characters	2240 characters	2240 characters
Character Generation	Dot matrix	15 x 8 dot matrix	8 x 15 dot matrix	8 x 15 dot matrix
Cursor Positioning	Standard	L,R,U,D,H,E,C,W,S,P	L,R,U,D,H,E,C,W,S,P	L,R,U,D,H,E,C,W,S,P
Vertical Scrolling	Standard	Standard to 94 lines	Standard to 94 lines	Standard to 94 lines
Horizontal Scrolling	Standard	Virtual to 250 chars.	Virtual to 250 chars.	Virtual to 250 chars.
Display Highlighting	Standard	Standard; halftone	Standard; halftone	Standard; halftone
Character Size Control	Not available	Not available	None	Not available
Character Pitch Display	Not available	Not available	None	Not available
Character Spacing Display	Not available	Not available	None	Not available
Line Spacing Display	Standard	Not available	None	Not available
Line Justify Display	Not available	Not available	None	Not available
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Diablo 630	Qume S-III, 45-cps ¹	Philips 40, 40-cps	Daisy 15, 40, 55-cp
Printer Buffer Memory	Full page (90 lines)	2K characters	2K characters	—
Character Pitch/Spacing	10,12,15, (prop./stand.)	Variable, 3 to 40	Variable, 3 to 40	Variable, 3 to 40
Writing Line Width	13"	13" or 26"	13" or 26"	13" or 26"
Carriage Paper Width	15"	15" or 28"	15" or 28"	15" or 28"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard/background	Standard/background	Standard/background
GENERAL FEATURES				
Stored Format	Standard	With document	With document	With document
Default Format	Standard	Standard	Standard	Standard (changeable)
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Display prompts and cues	Display prompts and cues	Prompts/cues/self help
Menus and Prompts	Standard	Prompts only	Prompts only	Prompts only
Forms Input	Standard	Auto. to designated field	Auto. to designated field	Auto. to designated field
Control Character Printout	Not available	Standard	Standard	Standard
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Standard	5 documents	5 documents	5 documents
Prioritizing	Standard	Manual	None	Not available
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Title/ref. no./page-end	Title/ref. no./page no.	Title/ref. no./page no.
System Security	Standard (hard disk only)	Not available	Standard (hard disk only)	Standard w/hard disk
Operator log-on password	Hard disk only	Not available	Hard disk only	—
Document access password	Hard disk only	Not available	Standard	Standard w/hard disk
No. of priority levels	Four	Not available	Five	One
Keylock	Optional	Not available	None	—
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Standard	Manual; adjustable hot zone w/auto scan	Standard; operator controlled	Standard; operator controlled
Auto Input Underlining	Standard	Continuous	Continuous	Continuous
Auto Centering	Standard	Page/col/graph/tables	Page/col/graph/tables	Page/col/graph/tables
REMARKS & OTHER FEATURES	Ability to convert ASCII files to word docs. and reverse. ¹ Green or amber optional.	¹ Diablo 40-cps also avail. Qume TwinTrack and WideTrack Shared printer config. optional; 3 to 4 cpi. Rectilinear graphics standard.	¹ 2005—256KB.	Rectilinear graphics standard. Printer shared by four systems optio ¹ Dot 120-cps.

Standalone Word Processing Systems

Ontel Corporation	Philips Information Systems, Inc.	Philips Information Systems, Inc.	Philips Information Systems, Inc.	COMPANY
OP-1 WORD/6	Philips 2001/E	2002	Series 3000/Universal Workstation	MODEL
Standard Standard Standard Standard Standard	Standard During input/output Alter. left/right W/in document Standard	Standard Standard Standard Standard Standard	Standard Standard Alter. left/right Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Multiple paragraphs assembled with variable text Character string	Para. assembly/stored & ext.; assembled and merged w/kybd text By page, name, character string, cursor position	Para. assembly/stored & ext.; assembled and merged w/kybd text By page, name, character string, cursor position	Para. assembly/stored & ext.; assembled and merged w/text By page, name, character string, cursor position	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
C, W, L, S, para, page	C, W, L, P, S, or specified block	C, W, L, P, S, or specified block	C, W, L, P, S, specified blocks	Delete Capability
Manual, or auto. replace of all occurrences of character string	80 char. string; 94 strings or to 1,000 char.; simultaneous selective; foreground	80 char. string; 94 strings or to 1,000 char.; simultaneous selective; foreground	80 char. string; 94 strings; simultaneous selective; foreground	Global Search & Replace
Standard Standard Standard Standard Standard Screen; ascd or dscd	Standard Standard Standard Standard Standard Screen or disk backgrnd, 9 lvls; ascd or dscd	Standard Standard Standard Standard Standard Screen or disk backgrnd, 9 levels; ascd or dscd	Standard Standard Standard Standard Standard Screen or disk backgrnd, 9 lvls, ascd/desc, opt. 25 levels, background, optional	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Standard	25 levels, background	25 levels, background		Auto File Select
Standard Not available	Standard Optional	Standard Not available	Standard Optional	Term Dictionary/Glossary Spelling Verification
Standard ASCII, async, sync, 2780 38.4K to 50K bps	Async and bsync (bkgrnd) TTY (50 to 9600 bps); VT52 (300 to 9600 bps); 2741 (134.5 to 300 bps) ¹	Async and bsync TTY (50 to 9600 bps); VT52 (300 to 9600 bps); 2741 (134.5 to 300 bps)	Optional TTY, VT52/VT100, 2780, 3780, 3270EM; ASCII	COMMUNICATIONS Availability Protocols & Speed
4-function w/memory function, up to 63 steps recall Using command file	Col. verification, five function plus full-function Standard	Col. verification, five function plus full-function Standard	Col. verification, five-function Standard	ARITHMETIC CAPABILITY
Standard MDOS/HDOS BAS., FOR., CP/M, OP/L	Standard CP/M Not available Basic Microsoft™	Standard CP/M Not available Basic Microsoft™	Standard CP/M None None	KEYSTROKE STORAGE
Standard	Records process., sort math, keystroke memory ²	Records process., sort math, keystroke memory ¹	Rec process/srt/math/kystr mem/scientific ¹	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
8-or 16-User, Hard Disk Controller, single/dual diskettes (std./mini); Winchester, 10MB; 4-User Winchester, 10MB	Mag card reader; WideTrack, Dual Head printers; dual- or single-sheet feeders; Numeric 10-key pad, env. feeder	Forms tractor, dual-sheet feeder, envelope feeder, acoustical cover Qume 45/55-cps printer	Ext. char. & wide printers, num. keypad, print-share by 4 systems, comb auto. paper/env. feed, forms tractor, sound cover	PERIPHERALS
January 1974 USA	May 1981 —	1982 —	August 1982 Canada	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
OEM quantities of 100+ from \$3,250 Not available	\$7,600 to \$10,400 (six models) —	\$11,400 ² —	\$3,900 single drive Available (GSA only)	PRICING & TERMS Purchase
Not available	Available on request	—	Available	Rental
OEM-supplied or depot-level/3rd party 90 days	\$101 to \$130/mo. 90 days, parts & labor ¹ 3276, Model 2 Miconet. ² Titlepro, sci./math symbols; dual font; prof. workstation. GSA pricing avail. All software avail. bilingual/European lang., Spelling, dual font.	\$2,000/yr. 90 days, parts & labor ¹ Titlepro®, scientific/math symbols, dual font; prof. workstation, GSA pricing avail. All software avail. b/ling. Euro. lang., Spelling, dual font. ² W/controller scr.	\$683/yr. Available GSA pricing avail. All software avail. bilingual/international. Spelling, dual font. ¹ Scientific/Greek symbols w/text.	Lease Maintenance
				Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Remington Rand Corporation	Remington Rand Corporation	Rothenberg Information Systems	Sony Corporation of America
MODEL	Serif ₁	Serif ₂	Rothenberg TPC-1 Series One	Series 35-Partial Page
SYSTEM CONFIGURATION				
Configuration	Keyboard/CRT, mini-diskette drive, printer	Keyboard/CRT, dual mini-diskette drives, printer	Keyboard/display, diskette console, printer	Keyboard w/disk drive CRT/Printer
Microprocessor Type	Z80A	Z80A	Z80	Z80 (3)
Memory Size	128KB	128KB	64KB	256KB
Storage Media	5 1/4" disk; snlgl/dbl-sided, dbl-density	5 1/4" disk; snlgl/dbl-sided, dbl-density	Dual diskette	Dual 3 1/2" micro disk
Storage Capacity	160KB (50 pgs), 260KB	320KB (100 pgs), 740KB	530KB/diskette ¹	265KB to 640KB
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	12" diagonal CRT	12" diagonal
Color	Black on white	Black on white	Green on gray	Green on charcoal
Display Buffer Memory	16K characters	16K characters	Unlimited	14K characters ¹
Format & Capacity	57 lines by 85 chars. ¹	57 lines by 85 chars. ¹	24 lines by 80 chars.	25 lines by 80 chars.
Total Characters	4845 characters	4845 characters	—	1680 - 4 format lines
Character Generation	8 x 10 characters	8 x 10 characters	9 x 12 dot matrix	7 x 9 dot matrix
Cursor Positioning	L,R,U,D, beg., end., page	L,R,U,D, beg., end., page	L, R, U, D, T, Bt, of ²	L, R, U, D, T, B
Vertical Scrolling	Line, page, virtual	Line, page, virtual	Line or page	Virtual w/in page ¹
Horizontal Scrolling	Virtual	Virtual	Standard	Virtual
Display Highlighting	Bold, gray, reverse video	Bold, gray, reverse video	Bold, reverse	Intensity, bold
Character Size Control	Not available	Not available	Not available	Not available
Character Pitch Display	Not available	Not available	Not available	Fixed, 10-pitch
Character Spacing Display	Line justify	Line justify	Code	10, 12, ps
Line Spacing Display	Single, double, triple	Single, double, triple	Standard	Not available
Line Justify Display	Standard	Standard	Standard	Not available
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Not available	Standard	Code	Codes
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	None	None	Standard	Standard (on/off)
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Daisywheel, 20 or 35-cps	Daisywheel, 20 or 35-cps	Daisywheel 45-cps	Thimble; 20/35/55-cps
Printer Buffer Memory	760 characters	760 characters	256 characters	—
Character Pitch/Spacing	10, 12, 15	10, 12, 15	8 thru 15 & proportional	10, 12, 15, proportional
Writing Line Width	13.2"	13.2"	13.2"	13.2"
Carriage Paper Width	17"	17"	15"	15.5"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Optional	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	With document	With document	W/document	Standard
Default Format	Standard	Standard	Standard	Standard user custom
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Conversational keyboa
Menus and Prompts	Standard; can bypass	Standard; can bypass	Menu bypass	Standard
Forms Input	Standard	Standard	Automatic	Standard
Control Character Printout	N/A (no control chars.)	N/A (no control chars.)	Standard	Line numbers only
Printout Queuing	Not available	Not available	Standard	Standard
No. of Pages/Documents	—	—	Unlimited	Variable
Prioritizing	—	—	Standard	Standard; 9 levels
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Diskette	Diskette	Standard	Disk, documents
Operator log-on password	—	—	Standard	Not available
Document access password	—	—	—	Not available
No. of priority levels	—	—	—	Not available
Keylock	—	—	Optional	Not available
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Manual w/hot zone	Manual w/hot zone	Scan w/operator decision	Manual, adjustable hot zone
Auto Input Underlining	Word/continuous	Word/continuous	Continuous/word	Standard
Auto Centering	Standard	Standard	On page	Standard
REMARKS & OTHER FEATURES	Complete system with printer fits on a secretarial return. ¹ Full-Page Display, Help key (tutorial) OOPS key (recovery) Strike-Through (screen & ptr).	Complete system with printer fits on a secretarial return. ¹ Full-Page Display, Help Key (tutorial) OOPS key (recovery) Strike-Through (screen & ptr).	¹ Optional 630KB-1320KB/diskettes, 10MB, 15MB 30MB/fixed disks, 2.5MB floppy drive. ² Sc/dc & multiprocessing systems	¹ Two 7K-character buffers. ² Or by page w/in document.

Standalone Word Processing Systems

Remington Rand Corporation	Remington Rand Corporation	Rothenberg Information Systems	Sony Corporation of America	COMPANY
Serif ₁	Serif ₂	Rothenberg TPC-1 Series One	Series 35-Partial Page	MODEL
Standard Standard Not available Not available Standard	Standard Standard Not available Not available Standard	Standard Left/right Left/right Not available Standard	Standard Standard Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Optional	Optional	Stored text assembled and merged w/keyboarded text	Standard	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Standard	Standard	By char. string (to 60 chars), by doc. name	Go to char. string; w, l, s, para, page, doc, codes	Search Capability
C, W, L, S, P, block, document Standard	C, W, L, S, P, block, document Standard	C, W, L, block —	C, w, l, s, para, doc block column Standard including step mode, page bound or doc. boundary	Delete Capability Global Search & Replace
Standard Standard Standard Standard Standard Optional	Standard Standard Standard Standard Standard Optional	Standard Standard Standard Standard Manual Standard 20 levels	Standard Standard Standard Standard Standard (on/off) Standard	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Optional	Optional	Optional 100 levels 10 criteria foreground	Standard	Auto File Select
Not available Not available	Not available Not available	Standard Optional	Steno ¹ Optional	Term Dictionary/Glossary Spelling Verification
Optional Async, TTY; 300-9600 bps	Optional Async, TTY; 300-9600 bps	Optional ASCII async 110 to 9600 bps bisync (2780/3780) 2K-50K bps Optional full function	Optional Async, TTY, 300-1200 bps	COMMUNICATIONS Availability Protocols & Speed
Optional	Optional	—	Standard; calculator; horizontal & vertical	ARITHMETIC CAPABILITY
Optional	Optional	—	Standard	KEYSTROKE STORAGE
Not available CP/M 2.2 CP/M-compat. Not available CP/M compat.	Not available CP/M 2.2 CP/M-compat Not available CP/M-compat	Standard Standard Bas, For IV, Cob, PL/1 — Leg. billing, acctg, data base, mgrnt, prop mgmt Additional input stations, sheet feeder, envelope, feeder	Standard CP/M Not available Not available Optional	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
Printer, sheet feeder, forms tractor feeder, and attachment to ETs: Canon, Remington Rand, Silver-Reed, TEC	Printer, sheet feeder, forms tractor feeder, and attachment to ETs: Canon, Remington Rand, Silver-Reed, TEC	—	Typecorder portable keyboard, printer sharing, sheet feeders, forms tractor	PERIPHERALS
February 1982 USA	February 1982 USA	July 1977 USA	August 1981 Japan	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$4,375 ¹	\$4,775 ¹	\$5,995 to \$15,995	\$5,495 to \$8,275	
Available	Available	—	—	Rental
Available	Available	—	Available	Lease
Available	Available	\$95/mo.	Available	Maintenance
90 days ¹ Price includes printer, software, console & keyboard.	90 days ¹ Price includes printer, software, console & keyboard.	Complete	90 days parts & labor ¹ Character question scheme for common words and suffixes	Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Sony Corporation of America	Syntrex Incorporated	Technology International Corp.	Technology International Corp.
MODEL	Series 35-Full Page	Aquarius I/II	EDIT PAK System I	EDIT PAK System II
SYSTEM CONFIGURATION				
Configuration	Keyboard w/disk drives/ CRT/Printer	CRT, base, keyboard, optional printer	Keyboard, CRT, printer, cassette	Keyboard, CRT, p diskette
Microprocessor Type	Z80 (3)	8086	8085	8085
Memory Size	256KB	256KB	8KB	64KB
Storage Media	Dual 3½" micro disks	DS/DD 5¼" diskettes	Magnetic tape cassette	5¼" DSDD
Storage Capacity	265KB to 640KB	400KB/diskette	128KB/cassette	321KB/diskette
DISPLAY FEATURES				
Screen Size & Type	15" diagonal	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	Black on white	Wht on blk or blk on wht	Green on black	Green on black
Display Buffer Memory	14K characters ¹	—	1680 characters	1920 characters
Format & Capacity	64 lines by 96 chars	25 lines by 80 chars.	21 lines by 80 chars.	24 lines by 80 cha
Total Characters	5760 - 4 format lines	2000 characters	1680 characters	1920 characters
Character Generation	12 x 15 dot matrix	9 x 12 dot matrix	9 x 14 matrix	9 x 14 matrix
Cursor Positioning	L, R, U, D, T, B	L, R, U, D, wd, snt, para	L, R, U, D, C, W, L, P, P	L, R, U, D, C, W, L
Vertical Scrolling	Virtual w/in page ¹	Smooth, doc. oriented	Standard	Standard
Horizontal Scrolling	Virtual	200 characters .	Not available	Standard
Display Highlighting	Reverse intensity, bold	Bold, reverse video	Bold	Bold, reverse video
Character Size Control	Not available	Not available	Not available	Not available
Character Pitch Display	10, 12 pitch	Not available	Not available	Not available
Character Spacing Display	10, 12, ps	Not available	Not available	Not available
Line Spacing Display	As required	Not available	Standard	Standard
Line Justify Display	Not available	Standard	Not available	Standard
Underscore Display	Standard	Single and double	Single, double	Single, double
Sub/Superscript Display	Codes	Superscripts	Standard	Standard
Multi-Column Page Display	Standard	Not available	Standard	Standard
Stored Form Recall/Display	Standard	Not available	Standard	Standard
Control Code Display	Standard (on/off)	Standard	Not available	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Thimble; 20/35/55-cps	Aries 20-cps ¹	TEC F-10, 40-cps	TEC F-10, 40-cps
Printer Buffer Memory	—	Not available	256K characters	256K characters
Character Pitch/Spacing	10, 12, 15, proportional	10, 12, 15, proportional	10, 12	9, 10, 12, 15
Writing Line Width	13.2"	13.2"	150 spaces	250 spaces
Carriage Paper Width	15.5"	15.5"	15.5"	15.5"
First Line Forms Advance	Standard	—	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Not available	Standard
GENERAL FEATURES				
Stored Format	Standard	With document	Standard	Standard
Default Format	Standard user customized	Standard user customized	Standard	Standard
Stored Multiple Formats	Standard	Standard	Not available	Not available
Machine Dialog	Conversational keyboard	Standard	Standard	Standard
Menus and Prompts	Standard	Standard menu bypass	Not available	Standard
Forms Input	Standard	Not available	Automatic	Standard
Control Character Printout	Line numbers only	Not available	Not available	Standard
Printout Queuing	Standard	Standard	Not available	Standard
No. of Pages/Documents	Variable	Unlimited/100	—	1 document
Prioritizing	Standard; 9 levels	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Not available	Standard
Automatic Indexing	Standard	Standard	Not available	Standard
Docu. Title/Docu. History	Standard	Standard	—	Standard
System Security	Disk, documents	Standard	Not available	Not available
Operator log-on password	Not available	Not available	Not available	Not available
Document access password	Not available	Standard	Not available	Not available
No. of priority levels	Not available	Two	Not available	Not available
Keylock	Not available	Not available	Not available	Not available
Other	—	—	Not available	Not available
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Manual, adjustable hot zone	Manual with adjustable hot zone	Manual w/hot zone	Standard
Auto Input Underlining	Standard	Standard	Std.—word, continuous	Std.—word, continuc
Auto Centering	Standard	Standard	Standard—page, column	Standard
REMARKS & OTHER FEATURES				
	¹ Two 7K-character buffers. ² Or by page w/in document.	Table of contents opt; up to 384KB memory, 96-lpi, diskettes. ¹ Daisy 35/55-cps, Draft.	EDIT PAK systems are also available in Arabic.	¹ System II—single disk drive, System III—dual disk drive.

Standalone Word Processing Systems

Sony Corporation of America	Syntrex Incorporated	Technology International Corp.	Technology International Corp.	COMPANY
Series 35-Full Page	Aquarius I/II	EDIT PAK System I	EDIT PAK System II/III	MODEL
Standard	Standard	1, 1½, 2, 2½, 3	1, 2, 3	TEXT INPUT (cont'd)
Standard	Standard	Not available	Standard	Variable Line Spacing
Standard	Multi, odd, even, both	Not available	Standard	Auto Page Numbering
Standard	Optional	Not available	Standard	Auto Headers/Footers
Standard	Standard	Not available	Standard	Auto Footnote Tie-In
				Auto Pagination
Standard	Option; list processing/sort	Not available	Standard	TEXT EDIT/MERGE FEATURES
				Document Assembly/Merge
Go to char. string; w, l, s, para, page, doc, codes	Character string by doc. & doc. history	By character string, page, line number	By character string, page	Search Capability
C, w, l, s, para, doc block column	Standard	Char., word, line, para., page	Char., word, line, para. page, document	Delete Capability
Standard including step mode, page bound or doc. boundary	Standard—66 characters	Standard	Standard	Global Search & Replace
Standard	Standard	Move	Standard	Block Move/Copy
Standard	Standard	Not available	Standard	Column Move/Delete
Standard	Standard	Not available	Standard	Auto Repagination
Standard	Standard	Not available	Standard	Auto Renumbering
Standard (on/off)	Standard user profitable	Not available	Standard	Auto Widow/Orphan Adjust
Standard	Standard; alpha & numeric	Not available	Available	Auto File Sort
Standard	Optional	Not available	Available	Auto File Select
Steno ¹	—	Not available	Available	Term Dictionary/Glossary
Optional	Optional	Not available	Available	Spelling Verification
Optional	Optional ¹	RS-232-C	RS-232-C	COMMUNICATIONS
Async, TTY, 300-1200 bps	ASCII, Syntrex to Syntrex—VT100, VT52, IBM 2780	Asynch., 110-19.2K bps	Asynch., 110-19.2K bps	Availability
Standard; calculator; horizontal & vertical	Optional function	Not available	Available	Protocols & Speed
Standard	Optional	Not available	Standard	ARITHMETIC CAPABILITY
Standard	Standard	Not available	Standard	KEYSTROKE STORAGE
CP/M	Standard	Not available	Available	EDP CAPABILITY
Not available	CP/M-86	Not available	Available	Multiprogramming
Not available	Not available	Not available	Available	Micro operating systems
Optional	Not available	Not available	Available	Compilers
	Available (3rd party)	Not available	Available	Interpreters
				Applications Software
Typewriter portable keyboard, printer sharing, sheet feeders, forms tractor	Shared Device Interface for comm. & printer, elec. file storage—up to 600,000 pages	Automatic sheet feeder, acoustic sound package, communications, work-stations	Automatic sheet feeder, acoustic sound package, communications, work-stations	PERIPHERALS
August 1981	August 1980	June 1982	January 1983	BACKGROUND INFORMATION
Japan	USA	USA	USA	First Delivery Date
\$7,715 to \$10,495	\$5,590 to \$7,490	\$3,995	\$5,495 to \$5,995	Country of Manufacture
—	Third party	Not available	Not available	PRICING & TERMS
Available	GE Leasing Co.	\$215 to \$291 (2-yr.)	Available	Purchase
Available	\$65/\$70 per month	\$400/yr.	\$600 to \$650/yr.	Rental
90 days parts & labor	90 days parts & labor	90 days parts & labor	90 days parts & labor	Lease
¹ Character question scheme for common words and suffixes	Upgradable to shared resource system & Local Area Network.			Maintenance
				Warranty & Support
				REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Wang Laboratories, Inc.	Wordplex Corporation	Wordplex Corporation	Wordplex Corporation
MODEL	OIS 40	Wordplex 80-3	Wordplex 80-2	Wordplex 80-4
SYSTEM CONFIGURATION				
Configuration	Workstation sys.master diskette drive ¹	Keyboard, CRT, mini-diskettes, printer	Keyboard, CRT, mini-diskettes, printer	Keyboard, CRT, mini-diskettes, printer
Microprocessor Type	Z80	Z80 (3)	Z80 (2)	Z80 (4)
Memory Size	64KB/CPU; 64KB/Wkstn	64KB ¹	64KB ¹	128KB
Storage Media	Disk/5 1/4" diskette	Dual diskette	Single or dual diskette	Diskette, hard disk
Storage Capacity	10MB disk	268KB/diskette	161KB/diskette	600KB diskette, 10MB disk
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT
Color	Green on gray	Green on gray	Green on gray	Green on gray
Display Buffer Memory	8K characters	7680 characters	7680 characters	7680 characters
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	7 x 8 dot matrix	7 x 11 dot matrix	7 x 11 dot matrix	7 x 11 dot matrix
Cursor Positioning	L, R, U, D, H, rev	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H
Vertical Scrolling	By partial page	Line, paragraph, page	Line, paragraph, page	Line, paragraph, page
Horizontal Scrolling	Segmented	Segmented, virtual	Segmented, virtual	Segmented, virtual
Display Highlighting	Bold	Standard	Standard	Standard
Character Size Control	None	Not available	Not available	Not available
Character Pitch Display	None	Not available	Not available	Not available
Character Spacing Display	Fixed	Not available	Not available	Not available
Line Spacing Display	None	Single and double	Single and double	Single and double
Line Justify Display	None	Standard	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Code only	Code only	Code only
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	20-cps, all std Wang Prts	Daisywheel 25/35/45-cps	Daisywheel 25/35/45-cps	Daisywheel, 25/35/45-cps
Printer Buffer Memory	64K characters	—	—	—
Character Pitch/Spacing	10, 12, 15, proportional	10, 12, 15	10, 12, 15	10, 12, 15
Writing Line Width	13.2"	13"	13"	13"
Carriage Paper Width	11.5"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Via interword space	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	With document	With same or sep. doc.	With same or sep. doc.	With same or sep. doc.
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Both	Optional	Not available	Optional
Forms Input	Manual	Standard	Standard	Standard
Control Character Printout	None	Not available	Not available	Not available
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	120	86 pages/doc.	51 pages/doc.	86 pages/doc.
Prioritizing	Standard	Not available	Not available	Not available
System Status Reporting	Via index entries	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Standard	Not available	Not available	Not available
Operator log-on password	None	Not available	Not available	Not available
Document access password	Standard	Not available	Not available	Not available
No. of priority levels	Three	Not available	Not available	Not available
Keylock	None	Not available	Not available	Not available
Other	None	—	—	On Winchester
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Sys scan before print; hot zone	Scan w/operator decision	Scan w/operator decision	Scan w/operator decision
Auto Input Underlining	Continuous	Continuous	Continuous	Continuous
Auto Centering	On pg, between margins	Within margins	Within margins	Within margins
REMARKS & OTHER FEATURES	¹ OIS 50 has up to 4 workstations. OIS 40B includes 20 cps printer.	¹ Upgradable to 128KB.	¹ Upgradable to 96KB.	2 workstations can be added for cluster system.

Standalone Word Processing Systems

Wang Laboratories, Inc.	Wordplex Corporation	Wordplex Corporation	Wordplex Corporation	COMPANY
OIS 40	Wordplex 80-3	Wordplex 80-2	Wordplex 80-4	MODEL
Standard Standard, during output Standard None Semi-manual	Standard During output Not available Not available Standard	Standard During output Not available Not available Standard	Standard During output Not available Not available Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Stored txt and kybd input assb. as new doc. Multi. docs. comb. as new outpt	Stored txt and kybd input assb. as new doc. Multi. docs. comb. as new outpt	Stored txt and kybd inpt assb. as new doc. Multi. docs. comb. as new outpt	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By document page number, character string	By doc. name, page no., cursor position char. strings of 19 chars.	By doc. name, page no., cursor position char. strings of 19 chars.	By doc. name, page no., cursor position char. strings of 19 chars.	Search Capability
C, W, L, S, P, doc.	Char., word, line, sent. para., column, page One 19-char. string automatic, foreground	Char., word, line, sent. para., column, page One 19-char. string automatic, foreground	Char., word, line, sent. para., column, page One 19-char. string automatic, foreground	Delete Capability
30-character string, auto or selective				Global Search & Replace
Standard Standard Sys. scan/oper. decision Standard Manual Standard, two modes	Standard Standard Standard During output During repagination Standard	Standard Standard Standard During output During repagination Not available	Standard Standard Standard During output During repagination Standard	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Opt., foreground	Available on output multiple levels back- ground Not available Optional	Available on output multiple levels back- ground Not available Not available	Available on output multiple levels back- ground Not available Optional	Auto File Select
Standard Optional				Term Dictionary/Glossary Spelling Verification
Optional Bisync/Async, 2780/3780 TTY, 2741, 3270, 9600 bps; TTE, SNA 3274 ¹ Standard, full-function	Standard TTY, 2741 async 300- 1200 bps; 2770, 2780, 3780 ¹ 4-function, percentages, verification, multiple registers Standard	Not available Not available 4-function Not available	Standard TTY 2741 async 300- 1200 bps; 2770, 2780, 3780 ¹ 4-function, percentages, verification, multiple registers Standard	COMMUNICATIONS Availability Protocols & Speed
Via glossary				ARITHMETIC CAPABILITY
Standard CP/M optional Basic, optional None —	Not available CP/M Not available Basic ASAP, SSORT, Lifeboat Assoc. CP/M software	Not available CP/M Not available Not available Lifeboat Assoc. CP/M software	Not available CP/M Not available Basic ASAP, SSORT, Lifeboat Assoc. CP/M software Wordplex 80-81, 80-1, 80-3, 35, 45-cps print- er, RS-232-C devices	KEYSTROKE STORAGE
20, 35, 55, 120, 180-cps printers, wide, twin- track or dual speed laser printers; WISE; tape cartridge back-up, tape drive	—	—	—	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
June 1983 USA	April 1981 USA	April 1981 USA	September 1982 USA	PERIPHERALS
\$6,200 to \$8,200	\$7,800	\$5,100	\$10,100	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$441 to \$549 (OIS 40)	—	—	—	Rental
None	\$328/mo. (35-mo.) including maint. \$105/mo.	\$211/mo. (35-mo.) including maint. \$65/mo.	\$419/mo. (35-mo.) including maint. \$130/mo.	Lease
\$63 to \$88 (OIS 40)	—	—	—	Maintenance
30 days TTE/TTY 4800 bps; 2741, 1200 bps; 2780/ 3780, 9600 bps.	— ¹ Also 3271/3275 up to 4800 bps; WPX up to 9600 bps.	—	— ¹ Also 3271/3275 up to 4800 bps; WPX up to 9600 bps.	Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	X Mark Corporation	X Mark Corporation	X Mark Corporation	Xerox Corporation
MODEL	Series 1000	Series 2000	Series 3000	860 Full Page Display
SYSTEM CONFIGURATION				
Configuration	CRT, keyboard, CPUs, diskette	CRT, keyboard, dual disk drive	CRT, keyboard, CPU	Controller, keyboard display, printer
Microprocessor Type	Z80A	8085	8085	8085A
Memory Size	160KB to 302KB	64KB	64KB to 320KB	128KB RAM; 6KB ROM
Storage Media	Diskette; hard disk	Dual diskette drive	Floppy disk; Winchtr; fixd/remov hard disk	8" SSSD or DSSD diskettes
Storage Capacity	800KB to 10MB	1.2MB	1.2MB to 300MB	300 pages or 600 pages
DISPLAY FEATURES				
Screen Size & Type	14" CRT	14"	15"	14" x 18" CRT
Color	—	Black on white	—	Wht on blk or blk on wht
Display Buffer Memory	2K characters	14K characters	14,400 characters	—
Format & Capacity	—	160 chars. by 90 lines	160 chars. by 80 lines	66 lines by 102 chars
Total Characters	Continuous scroll	14K characters	14,400 characters	6732 characters
Character Generation	Dot matrix	Dot matrix	Dot matrix	9 x 14 dot matrix
Cursor Positioning	4-way; skip; page	16 positions	16 positions	L, R, U, D, or diag.
Vertical Scrolling	To 244 chars.	Standard	Standard	Standard
Horizontal Scrolling	Continuous	Standard	Standard	Standard (to 156 chars)
Display Highlighting	Standard	Standard	Standard	Standard
Character Size Control	Not available	Standard	Standard	Standard
Character Pitch Display	Not available	Not available	Not available	Standard
Character Spacing Display	Not available	Not available	Not available	Standard
Line Spacing Display	Not available	Not available	Not available	Standard
Line Justify Display	Standard	Not available	Not available	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	18- to 55-cps	40 to 55-cps	Daisywheel; 18 to 55-cps	40-cps daisywheel
Printer Buffer Memory	2K to 48K characters	2K to 48K characters	2K to 16K characters	—
Character Pitch/Spacing	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, 15, proportional	10, 12, proportional
Writing Line Width	244 chars.	160 characters	160 characters	13"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Selectable	Standard	Selectable	Standard
End-of-Page Stop	Selectable	Standard	Selectable	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	Standard	Standard	Standard	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Some employed
Menus and Prompts	Standard	Standard	Standard	Prompts
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	Not available	Standard	Standard	Standard
No. of Pages/Documents	Not available	No limit	No limit	20 documents
Prioritizing	Not available	Standard	Standard	—
System Status Reporting	Standard	Standard	Standard	Not available
Automatic Indexing	Standard	Optional	Optional	Standard
Docu. Title/Docu. History	Standard	—	Optional	Standard
System Security	Not available	—	Standard	Not available
Operator log-on password	Not available	Optional	Standard	Tempest
Document access password	Not available	Optional	Standard	Tempest
No. of priority levels	Not available	Up to 3	3	Tempest
Keylock	Not available	Optional	Optional	Tempest
Other	Not available	Not available	Select ¹	Tempest
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Standard	Standard	Standard	Manual; adjustable hot zone
Auto Input Underlining	Standard	Standard	Standard	Standard
Auto Centering	Standard	Standard	Standard	Standard
REMARKS & OTHER FEATURES		Command processor to tailor a department's WP needs.	Command language processor for special WP operations. Customize features. ¹ Shared/locked file access.	

Standalone Word Processing Systems

X Mark Corporation	X Mark Corporation	X Mark Corporation	Xerox Corporation	COMPANY
Series 1000	Series 2000	Series 3000	860 Full Page Display	MODEL
Standard Standard Standard Not available Standard	Standard Standard Standard Optional Standard	Standard; 5 to 35 Standard Standard Standard Standard	Standard Standard Standard Optional Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Standard	—	Standard	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Standard	Standard	Standard (60 chars.)	Document name and char. string	Search Capability
Standard	Standard	Standard	Grammatical segment or block	Delete Capability
Standard	Standard	Standard (60 chars.)	Standard	Global Search & Replace
Standard Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard Standard (6 methods)	Standard Standard Standard Optional Standard Optional	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Standard	Standard	Standard	Optional	Auto File Select
Standard Standard	Standard Optional	Standard Optional	Optional Optional	Term Dictionary/Glossary Spelling Verification
Standard TTY; RS-232-C	Standard TTY; 2780; system to system 19.2	Standard RS-232-C; 2780; Async; system to system, 50 to 19.2 Five-function math	Optional Asynch. ASCII, bisynch. 2770/2780, 3270, TTY, Ethernet ¹ 4-function standard	COMMUNICATIONS Availability Protocols & Speed
Spreadsheet	Standard	Standard	Standard	ARITHMETIC CAPABILITY
Not available	Standard	Standard	Standard	KEYSTROKE STORAGE
Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Optional CP/M — Basic Records Processing, and others Auto. paper feeder, envelope feeder, communications kit, Ethernet interface kit	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
Graphics; printers	OCR	OCR		PERIPHERALS
1983 USA	1978 USA	1983 USA	March 1980 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
\$2,695	\$5,700	\$7,200	\$10,450 ²	PRICING & TERMS Purchase
\$120	\$228	\$280.80/mo.	\$700/mo. (1-yr.) \$660/mo. (2-yr.)	Rental
2, 3, 5 yrs.	2, 3, 5 yrs.	2, 3, 5 yrs.	—	Lease
On-site and factory	On-site or factory	On-site or factory	\$1,250/yr. ²	Maintenance
90 days	90 days Rugged construction. 99 plus percent uptime.	90 days High reliability Hardware. High keystroke efficiency.	90 days parts & labor. ¹ Electronic mail, print, file, communications. ² Basic system: 860 Controller w/128KB memory; 2, single-sided diskette drives; keyboard; printer, display.	Warranty & Support REMARKS & OTHER FEATURES

Standalone Word Processing Systems

COMPANY	Xerox Corporation			
MODEL	860 Partial Page Display			
SYSTEM CONFIGURATION				
Configuration	Controller, keyboard display, printer			
Microprocessor Type	8085A			
Memory Size	128KB RAM; 6KB ROM			
Storage Media	8" SSSD or DSSD diskettes			
Storage Capacity	300 pages or 600 pages			
DISPLAY FEATURES				
Screen Size & Type	14.6" x 11.8" CRT			
Color	Wht on blk or blk or wht			
Display Buffer Memory	—			
Format & Capacity	24 lines by 102 chars.			
Total Characters	2248 characters			
Character Generation	9 x 14 dot matrix			
Cursor Positioning	Opt. L, R, U, D, or diag.			
Vertical Scrolling	Standard			
Horizontal Scrolling	Standard (to 156 char.)			
Display Highlighting	Standard			
Character Size Control	Standard			
Character Pitch Display	Standard			
Character Spacing Display	Standard			
Line Spacing Display	Standard			
Line Justify Display	Standard			
Underscore Display	Standard			
Sub/Superscript Display	Standard			
Multi-Column Page Display	Standard			
Stored Form Recall/Display	Standard			
Control Code Display	Standard			
Format Statement Display	Standard			
PRINTER FEATURES				
Printer Type & Speed	40-cps daisywheel			
Printer Buffer Memory	—			
Character Pitch/Spacing	10, 12, proportional			
Writing Line Width	13"			
Carriage Paper Width	15"			
First Line Forms Advance	Standard			
End-of-Page Stop	Standard			
Justified Printout	Standard			
Sub/Superscript Printout	Standard			
Non-Adjust Printout	Standard			
Bidirectional Printout	Standard			
Simultaneous Input/Output	Standard			
GENERAL FEATURES				
Stored Format	Standard			
Default Format	Standard			
Stored Multiple Formats	Standard			
Machine Dialog	Some employed			
Menus and Prompts	Prompts			
Forms Input	Standard			
Control Character Printout	Standard			
Printout Queuing	Standard			
No. of Pages/Documents	20 documents			
Prioritizing	—			
System Status Reporting	Not available			
Automatic Indexing	Standard			
Docu. Title/Docu. History	Standard			
System Security	Not available			
Operator log-on password	Tempest			
Document access password	Tempest			
No. of priority levels	Tempest			
Keylock	Tempest			
Other	Tempest			
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard			
Hyphenation	Manual; adjustable hot zone			
Auto Input Underlining	Standard			
Auto Centering	Standard			
REMARKS & OTHER FEATURES				

Standalone Word Processing Systems

Xerox Corporation				COMPANY
<p>860 Partial Page Display</p> <p>Standard Standard Standard Optional Standard</p> <p>Standard</p> <p>Document name and char. string</p> <p>Grammatical segment or block Standard</p> <p>Standard Standard Standard Optional Standard Optional</p> <p>Optional</p> <p>Optional Optional</p> <p>Optional Asynch. ASCII, bisynch. 2770/2780, TTY, Ethernet¹ 4-function, standard</p> <p>Standard</p> <p>Optional CP/M</p> <p>Basic Rec proces; Sprcalc; Multiplan (CP/M) Basic Auto. paper feeder, envelope feeder, communications kit, Ethernet interface kit.</p> <p>March 1980 USA</p> <p>\$9,375²</p> <p>\$575 (1-yr.) \$550 (2-yr.)</p> <p>\$1,155/yr.²</p> <p>90 days parts & labor. ¹Electronic mail, print, file communications. ²Basic system: 860 Controller w/128KB memory, 2, single-sided diskette drives; keyboard; printer; Partial Page.</p>				<p>MODEL</p> <p>TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination</p> <p>TEXT EDIT/MERGE FEATURES Document Assembly/Merge</p> <p>Search Capability</p> <p>Delete Capability</p> <p>Global Search & Replace</p> <p>Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort</p> <p>Auto File Select</p> <p>Term Dictionary/Glossary Spelling Verification</p> <p>COMMUNICATIONS Availability Protocols & Speed</p> <p>ARITHMETIC CAPABILITY</p> <p>KEYSTROKE STORAGE</p> <p>EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software</p> <p>PERIPHERALS</p> <p>BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase</p> <p>Rental</p> <p>Lease</p> <p>Maintenance</p> <p>Warranty & Support REMARKS & OTHER FEATURES</p>

Multi-Terminal Word Processing Systems

The following tables cover the parameters, features and pricing of 70 multi-terminal word processing systems currently marketed by 25 different vendors.

The first or even-numbered pages cover System Configuration; Display Station Features; Printer Station Features; General Functional Features; and Text Input Features for each multi-terminal system.

The second or odd-numbered pages continue the coverage of Text Input Features and also detail Text Edit & Merge Features; Communications Arithmetic Capability; EDP Capability; Peripherals; Background Information; and Pricing & Terms.



Multi-Terminal Word Processing Systems

COMPANY	AES Data, Inc.	AES Data, Inc.	AES Data, Inc.	ATV Systems, Inc.
MODEL	Multiplus	Multiplus II	AES 7200 ¹	J100
SYSTEM CONFIGURATION				
System CPU/Controller	AES 800 and Intel 8080s	AES 800 and Intel 8080	AES 800, Intel 8080	J100
CPU/Controller Memory	192KB or 256KB	128KB to 256KB	128KB to 256KB	128KB
System Storage Media	Disk, diskette	Disk, diskette	Disk, diskette	Disk, diskette
Storage Capacity	600KB/dskt; to 96MB/disk ¹	100MB; 600MB ¹	100MB; 600MB ²	320MB; 250KB
File Organization	Workspaces, document, page	Workspace, document, page	Workspace, document page	By document name
Max. No. Keystations Supported	30 with Multilink	8	4	7
Max. No. Printers Supported	36 with Multilink	9	5	8
DISPLAY FEATURES				
Screen Size & Type	14" diagonal	14" diagonal CRT	14" diagonal CRT	12" diagonal CRT
Color	Green on black	Green on black	Green on black	White on black
Display Buffer Memory	8KB characters	8KB characters	8KB characters	1920 characters
Format & Capacity	26 lines by 80 chars.	26 lines by 80 chars.	26 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	Dot matrix	Dot matrix	Dot matrix	7 x 9 dot matrix
Cursor Positioning	L, R, U, D, H, E	L, R, U, D, H, E, N, P	L, R, U, D, H, E, N, P	L, R, U, D, H
Vertical Scrolling	Standard to 99 lines	Std. 99 lines Virt.	Std. 99 lines Virt.	Virtual
Horizontal Scrolling	Std. to 254 char. virtual	Std. 254 chars. Virt.	Std. 254 chars. Virt.	Virtual to 450 characters
Display Highlighting	Reverse video	Reverse video	Reverse video	Blink, reverse
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	None	None	None	None
Line Justify Display	Highlight	Highlight	Highlight	None
Underscore Display	Standard	Standard	Standard	None
Sub/Superscript Display	Standard	Standard	Standard	Optional
Multi-Column Page Display	Std., flowing columns	Std. flowing col.	Std. flowing col.	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Qume 45-cps ²	Daisy M-45, 45-cps ²	Daisy M-45, 45-cps ³	40/45/55-cps daisywheel
Printer Buffer Memory	128 bytes	128 bytes	128 bytes	256 bytes
Character Pitch/Spacing	Incremental, proportional	Incremental, proport.	Incremental, proport.	Variable/proportional
Writing Line Width	13", 26" optional	13", 26" optional	13", 26" optional	13.2"/26.25"
Carriage Paper Width	15", 28" optional	15", 28" optional	15", 28" optional	15"/28.24"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	With document	With document	With document	W/doc or separate
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Status line on display	Status line on disp.	Status line on disp.	Standard
Menus and Prompts	Mnemonic cmd. structure	Mnemonics, help/menu	Mnemonics, help/menu	Standard, menu bypass
Forms Input	Automatic	Automatic	Automatic	Auto w/Data-Rite
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	15 documents	15 documents	15 documents	Disk(ette) capacity
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard, alphanumeric	Standard, alphanumeric	Standard, alphanumeric	Standard
Docu. Title/Docu. History	Oper. assigned	Oper. assigned	Oper. assigned	Standard
System Security	Standard	Standard	Standard	Optional
Operator log-on password	None	None	None	Standard w/security
Document access password	Standard	Standard	Standard	Standard w/security
No. of priority levels	4 levels	4 levels	4 levels	One
Keylock	None	None	None	None
Other	None	None	None	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Scan with operator decision, plus ghost hyphenation	Scan w/operator decision, plus ghost hyphenation	Scan w/operator decision, plus ghost hyphenation	Hot zone, scan w/operator decisions
Auto Input Underlining	Continuous	Continuous	Continuous	Continuous, word
Auto Centering	On page, within column	On page, within col.	On page, within col.	On page or w/in column
REMARKS & OTHER FEATURES	¹ 16/32/96MB disk ² Qume wide-track, twin-track line printer—300 lpm; linking CPU's—Host/2 users each, up to 96MB storage, 8 screens on each system. *Information not updated	¹ Optional 10MB fixed disk available ² Qume wide-track, Qume twin-track line printer 300 lpm *Information not updated	¹ Ergonomic, entry—level cluster system, optional 10MB integrated fixed disk available ² Qume wide-track, Qume twin-track line printer 300 lpm *Information not updated	¹ 300 lpm printer *Information not updated

Multi-Terminal Word Processing Systems

WP11-040-703
Word Processing Systems

AES Data	AES Data, Inc.	AES Data, Inc.	ATV Systems, Inc.	COMPANY
Multiplus	Multiplus II	AES 7200	J100	MODEL
Standard Standard on output Standard & alternate Automatic Standard	Standard Standard on output Standard & alternate Automatic Standard	Standard Standard on output Standard & alternate Automatic Standard	Standard Standard Alternating odd & even None Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard, stored with keyboard text	Standard, stored with keyboard text	Standard, stored with keyboard text	Stored text, para, doc. & variables assembly	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Text key segments, document, page, 44-char. text string	Text key segments, document, page, 44 char. text string	Text key segments, document, page, 44 char. text string	32-char. string, segment, doc. title, page number	Search Capability
C, W, S, P, L, remainder or speci. block Std. global, S&R auto. or selective foregrd. or backgrd. Opt.—Multi-string S&R ¹ Standard Standard Standard On output Standard Optional, 7 levels, background Opt., unlimited number of levels, 7 criteria + and, or, not; bckgrd. Standard N/A	C, W, S, P, L, remainder or specified block Standard Global S&R automatic or selective foreground or background ¹ Standard Standard Standard Standard Standard Optional, 7 levels Opt. unlimited no. of levels, 7 criteria Standard Optional; 64,000 words	C, W, S, P, L, remainder or specified block Standard Global S&R, automatic or selective foreground or background ¹ Standard Standard Standard Standard Standard Optional, 7 levels Opt. unlimited no. of levels, 7 criteria Standard Optional; 64,000 words	Text string, block, page 32-char. string, 1 pass, auto or selective, foreground Standard Standard Standard Standard Standard Standard: 10 levels Optional: 8 levels Standard: 10 levels; Optional: 99 levels: foreground Standard None	Delete Capability Global Search & Replace Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort Auto File Select Term Dictionary/Glossary Spelling Verification
Optional Sync. pt.-to-pt. Async. ASCII/TTY; to 4800 bps Optional, full-function with registers, keystroke memory Opt.—avail. in conjunction with all software	Optional Sync., Pt-to-Pt, Async., ASCII-TTY, to 4,800 bps Opt., full function, with registers and keystroke memory Opt., avail. in conjunction with all S/W	Optional Sync., Pt-to-Pt, Async., ASCII-TTY to 4,800 bps Opt., full function with registers and keystroke memory Opt., avail. in conjunction with all S/W	Optional Async. EBCDIC, ASCII: 110-4800 bps ¹ , TTY, 2780, 3780, 3270 Full-function Standard	COMMUNICATIONS Availability Protocols & Speed ARITHMETIC CAPABILITY
Standard None None None Scientific/line drawing/financial ² OCR, paper tape punch, added printers	Standard Optional, 16 bit Basic, Assembly Basic Data Base Management, Spreadsheet ² OCR, paper tape punch, added printers	Standard Optional, 16 bit Basic, Assembly Basic Data Base Management Spreadsheet ² OCR, paper tape punch, added printers	Standard None Basic, Assembly None Various packages avail. Line printers, disk storage, tape, OCR	KEYSTROKE STORAGE EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software PERIPHERALS
October 1979 Canada	July 1982 Canada	September 1983 Canada	February 1977 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
Configuration dependent	\$16,000 ³	\$12,000 ³	\$14,980 ²	Rental
Configuration dependent	Available	Available	Available	Lease
Configuration dependent	Available	Available	Available	Maintenance
Configuration dependent	Available	Available	ATV Service, Inc.	Warranty & Support
90 days, ESR support	90 days, ESR support	90 days, ESR support	90 days, self-training package ¹ Bisynch. to 4800 bps; 3780, 3270 ² Includes host CPU, dual diskettes, display and keyboard	REMARKS & OTHER FEATURES
Multiple string search/replace Table of contents, sort, extract report, merge, Design-A-Text, glossary, auto. index, user programming, revision indicators, floating footnotes, advanced section, numbering	¹ Single or Multiple/ String S&R ² table of contents, records management, user programming, auto-index, revision indicators, floating footnotes, section nmbrg. ³ Incl. Host CPU, two diskette drives, display & keyboard, printer	¹ Single or multiple/ string S&R. ² table of contents, records management, user programming, auto-index, revision indicators, floating footnotes, section nmbrg. ³ Incl. host CPU, two diskette drives, prntr, display & keyboard		

Multi-Terminal Word Processing Systems

COMPANY	ATV Systems, Inc.	ATV Systems, Inc.	ATV Systems, Inc.	Axxa
MODEL	J200	J300	J600	Axxa System 90
SYSTEM CONFIGURATION				
System CPU/Controller	J200	J300	J600	Intel 8085
CPU/Controller Memory	128KB-512KB	128KB-512KB	128KB	192KB
System Storage Media	Disk, diskette	Disk, diskette, Winch.	Disk, diskette (SD or DD)	Disk; diskette
Storage Capacity	320MB; 250KB	320MB; 250KB	48MB; 500KB/disk	Disk/4 to 10MB; dkt/5
File Organization	By document name	By document name	By document name	By document, page, folders, subjects
Max. No. Keystations Supported	7	14	3	4 ¹
Max. No. Printers Supported	8	15	3	4
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	15" diagonal CRT
Color	White on black	White on black	White on black	Green on gray; reverse
Display Buffer Memory	1920 characters	1920 characters	1920 characters	Virtual
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	15 lines by 30 chars.
Total Characters	1920 characters	1920 characters	1920 characters	—
Character Generation	7 x 9 dot matrix	7 x 9 dot matrix	7 x 9 dot matrix	15 x 30 dot matrix
Cursor Positioning	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H	U, D, R, L, Home
Vertical Scrolling	Virtual	Virtual	Virtual	Standard
Horizontal Scrolling	Virtual to 450 characters	Virtual to 450 characters	Virtual to 450 chars.	None
Display Highlighting	Blink, reverse	Blink, reverse	Blink, reverse	Reverse video
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	10- & 12-pitch
Character Spacing Display	None	None	None	None
Line Spacing Display	None	None	None	Single only
Line Justify Display	None	None	None	Standard
Underscore Display	None	None	None	Std., H, V, solid or bl
Sub/Superscript Display	Optional	Optional	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	40/45/55-cps daisywhl ¹	40/45/55-cps daisywheel	40/45/55-cps daisywheel	Qume daisywheel, 45-
Printer Buffer Memory	256 bytes	256 bytes	256 bytes	—
Character Pitch/Spacing	Variable/proportional	Variable/proportional	Variable/proportional	10, 12, 15
Writing Line Width	13.2"/26.25"	13.2"/26.25"	13.2"/26.25"	13"
Carriage Paper Width	15"/28.24"	15"/28.24"	15"/28.24"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/doc or separate	W/doc or separate	W/doc. or separate	W/doc or separate de
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Standard, menu bypass	Standard, menu bypass	Standard, menu bypass	Standard
Forms Input	Auto w/Data-Rite	Auto w/Data-Rite	Auto w/Data-Rite	Standard
Control Character Printout	Standard	Standard	Standard	None
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Disk(ette) capacity	Disk(ette) capacity	Disk(ette) capacity	Virtual
Prioritizing	Standard	Standard	Standard	Operator assigned
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Optional	Optional	Optional	Standard
Operator log-on password	Standard w/security	Standard w/security	Standard w/security	Standard
Document access password	Standard w/security	Standard w/security	Standard w/security	Standard
No. of priority levels	One	One	1	—
Keylock	None	None	—	None
Other	None	None	—	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Hot zone, scan w/oper- ator decisions	Hot zone, scan w/oper- ator decisions	Hot zone, scan w/oper- ator decisions	Auto scan w/Hot Zone
Auto Input Underlining	Continuous, word	Continuous, word	Continuous, word	Standard
Auto Centering	On page or w/in column	On page or w/in column	On page or w/in column	Standard
REMARKS & OTHER FEATURES	1300 lpm printer *Information not updated	1300 lpm printer *Information not updated	*Information not updated	1Keyboards feature a 12-digit prompt display & 7 oper. message lig *Information not update

Multi-Terminal Word Processing Systems

WP11-040-705
Word Processing Systems

ATV Systems, Inc.	ATV Systems, Inc.	ATV Systems, Inc.	Axxa	COMPANY
J200	J300	J600	Axxa System 90	MODEL
Standard Standard Alternating odd & even None Standard	Standard Standard Alternating odd & even None Standard	Standard Standard Alternating—odd & even None Standard	Standard Standard Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Stored text, para, doc. & variables assembly	Stored text, para, doc. & variables assembly	Stored text, para, doc. & variables assembly	Auto. merge to document and/or printer	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
32-char. string, segment, doc. title, page number	32-char. string, segment, doc. title, page number	32-char. string, segment, doc. title, page number	By cursor and by character string	Search Capability
Text string, block, page	Text string, block, page	Text string, block, page	C, L, text segment, block & document Can be programmed	Delete Capability
32-char. string, 1 pass, auto or selective, foreground	32-char. string, 1 pass, auto or selective, foreground	32-char. string, 1 pass, auto or selective, foreground		Global Search & Replace
Standard Standard Standard Standard Standard Standard Standard: 10 levels Optional: 8 levels Standard: 10 levels; Optional: 99 levels; foreground Standard None	Standard Standard Standard Standard Standard Standard Standard: 10 levels Optional: 8 levels Standard: 10 levels; Optional: 99 levels; foreground Standard None	Standard Standard Standard Standard Standard Standard Optional: 8 levels Standard: 10 levels Standard: 10 levels; Optional: 99 levels; foreground Standard None	Standard None Standard Standard Standard Standard Standard Standard None None	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort Auto File Select
Optional Async. EBCDIC, ASCII: 110-4800 bps ¹ , TTY, 2780, 3780, 3270 Full-function	Optional Async. EBCDIC, ASCII: 110-4800 bps ¹ , TTY, 2780, 3780, 3270 Full-function	Optional Asy./110-4800 bps, TTY, 2780, 3780, 3270, Bsy./ 4800 bps Full-function	Remote comm. standard Async. ASCII, TTY, 3270; 300 to 9600 bps Standard math/calculator functions	COMMUNICATIONS Availability Protocols & Speed ARITHMETIC CAPABILITY
Standard	Standard	Standard	Standard	KEYSTROKE STORAGE
Standard None Basic, Assembly None Various packages avail.	Standard None Basic, Assembly None Various packages avail.	Standard None Basic, Assembler None Various pkgs. avail.	Optional Axxa proprietary Optional Optional, Basic Various ¹	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
Line printers, disk storage, tape, OCR	Line printers, disk and Winchester storage, tape, OCR	300 lpm matrix printer, line printers, disk storage, OCR	Model 940 printer; Model 911 controller; Model 951 disk storage unit; Model 961 communications interface	PERIPHERALS
July 1982 USA	July 1982 USA	1983 USA	March 1980 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$17,675 ²	\$21,400 ²	\$19,350 ¹	\$29,950 ²	
Available	Available	Available	Thru Anaconda-Ericsson	Rental
Available	Available	Available	Thru Anaconda-Ericsson	Lease
ATV Service, Inc.	ATV Service, Inc.	ATV Service, Inc.	Contract available	Maintenance
90 days, self-training package ¹ Bisync. to 4800 bps; 3780, 3270 emulation; ² Includes host CPU, dual diskettes, display and keyboard	90 days, self-training package ¹ Bisync. to 4800 bps; 3780, 3270 emulation ² Includes host CPU, dual diskettes, display, and keyboard	90 days; self-training pkg ¹ Includes host CPU, dual diskette, display, key- board and one satellite workstation	Available ¹ System can be progrm. for list processing; records processing is standard SW from vendor. Action Tracking is also avail. for monitoring work in progress on system ² Purchase price for a 2-terminal system	Warranty & Support REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	Barrister Info. Sys.	Barrister Info. Sys.	Barrister Info. Sys.	Barrister Info. Sys.
MODEL	Barrister/121	Barrister/211	Barrister/212	Barrister/409
SYSTEM CONFIGURATION				
System CPU/Controller	Barrister 150	Barrister/150	Barrister/150	Barrister/160
CPU/Controller Memory	1024KB-2048KB MOS	1024KB-2048KB MOS	1024KB-2048KB	1024 KB-2048KB
System Storage Media	Disk	Disk	Disk	Disk
Storage Capacity	13MB—104MB	40MB—320MB	80MB—320MB	148MB-592MB
File Organization	By doc. name, page or line number	By doc. name, page or line number	By doc. name, page or line number	By doc. name, page or line number
Max. No. Keystations Supported	16 I/O devices ¹	16 I/O devices ¹	16 I/O devices ¹	16 I/O ¹
Max. No. Printers Supported	—	—	—	—
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	White on black/reverse	White on black/reverse	White on black/reverse	White on black/reverse
Display Buffer Memory	1920 characters	1920 characters	1920 characters	1920 characters
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	7 x 7 dot matrix	7 x 7 dot matrix	7 x 7 dot matrix	7 x 7 dot matrix
Cursor Positioning	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H
Vertical Scrolling	By line, page	By line, page	By line, page	By line, page
Horizontal Scrolling	Segmented	Segmented	Segmented	Segmented
Display Highlighting	Reverse video	Reverse video	Reverse video	Reverse video
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Line Justify Display	Standard	Standard	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Diablo 40-cps daisywheel	Diablo 40-cps daisywheel ²	Diablo 40-cps daisywheel ²	Diablo 40-cps daisywheel ²
Printer Buffer Memory	768 characters	768 characters	768 characters	768 characters
Character Pitch/Spacing	10/12 proportional	10/12 proportional	10/12 proportional	10/12 proportional
Writing Line Width	13"	13"	13"	13"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/document separate	W/document separate	W/document separate	W/document separate
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	English language	English language	English language	English language
Menus and Prompts	Standard/opt. bypass	Standard/opt. bypass	Standard/opt. bypass	Standard/opt. bypass
Forms Input	Automatic	Automatic	Automatic	Automatic
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Unlimited	Unlimited	Unlimited	Unlimited
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Title/History	Title/History	Title/History	Title/History
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard	Standard	Standard	Standard
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	Two	Two	Two	Two
Keylock	None	None	None	None
Other	Data base password	Data base password	Data base password	Data base password
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Automatic via dictionary	Automatic via dictionary	Automatic via dictionary	Automatic via dictionary
Auto Input Underlining	Word/continuous	Word/continuous	Word/continuous	Word/continuous
Auto Centering	On page	On page	On page	On page
REMARKS & OTHER FEATURES	¹ Combination of CRT's & daisywheel printers; line printer may be added	¹ Combination of CRT's & daisywheel printers; line printer may be added	¹ Combination of CRT's & daisywheel printers; line printer may be added	¹ Combination of CRT's & daisywheel printers; line printer may be added ² 200, 600, 730, lpm printers available

Multi-Terminal Word Processing Systems

WP11-040-707
Word Processing Systems

Barrister Info. Sys.	Barrister Info. Sys.	Barrister Info. Sys.	Barrister Info. Sys.	COMPANY
Barrister/121	Barrister/211	Barrister/212	Barrister/409	MODEL
1-4, ½ line increments Std., Arabic/Roman Std., Altrntg even/odd Auto/w/in document Standard	1-4, line increments Std., Arabic/Roman Std., Altrntg even/odd Auto/w/in document Standard	1-4, line increments Std., Arabic/Roman Std., Altrntg even/odd Auto/w/in document Standard	1-4, line increments Std., Arabic/Roman Std., Altrntg even/odd Auto/w/in document Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Assembly and stored text	Assembly and stored text	Assembly and stored text	Assembly and stored text	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Segments, 120 char. string page no., docu- ment, title	Segments, 120 char. string page no., docu- ment, title	Segments, 120 char. string page no., docu- ment, title	Segments, 120 char. string page no., docu- ment, title	Search Capability
C, W, L, Block	C, W, L, Block	C, W, L, Block	C, W, L, Block	Delete Capability
120 character string, auto or selective	120 character string, auto or selective	120 character string, auto or selective	120 character string, auto or selective	Global Search & Replace
Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Alphanumeric, 10 levels	Alphanumeric, 10 levels	Alphanumeric, 10 levels	Alphanumeric, 10 levels	Auto File Select
Standard	Standard	Standard	Standard	Term Dictionary/Glossary Spelling Verification
None None	None None	None None	None None	COMMUNICATIONS Availability Protocols & Speed
Optional Asynchronous or bisyn- chronous ASCII; 300- 9600 bps, B/Net, LAN Std., four function, truncation, rounding, pic strings, forms Standard	Optional Asynchronous or bisyn- chronous ASCII; 300- 9600 bps, B/Net, LAN Std., four function, truncation, rounding, pic strings, forms Standard	Optional Asynchronous or bisyn- chronous ASCII; 300- 9600 bps, B/Net, LAN Std., four function, truncation, rounding, pic strings, forms Standard	Optional Asynchronous or bisyn- chronous ASCII; 300- 9600 bps, B/Net, LAN Std., four function, truncation, rounding, pic strings, form. Standard	ARITHMETIC CAPABILITY
Standard N/A None None Various packages available ¹ Lineprinter, OCR, mag tape dr, pap tape punch, cass tape punch, 200, 430, 600, 730, 1000 lpm ptrs. avail.	Standard N/A None None Various packages available ¹ Lineprinter, OCR, mag tape drive, paper tape punch, cassette tape punch	Standard N/A None None Various packages available ¹ Lineprinter, OCR, mag tape drive, paper tape punch, cassette tape punch	Standard N/A None None Various packages available ¹ Lineprinter, OCR, mag tape dr, pap tape punch, cass tape punch	KEYSTROKE STORAGE
1980 USA	1978 USA	1984 USA	1980 USA	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
\$29,950 ²	\$32,200 ²	\$47,300 ²	\$66,900 ²	PERIPHERALS
Available	Available	Available	Available	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
Third Party	Third Party	Third Party	Third Party	Rental
By Barrister	By Barrister	By Barrister	By Barrister	Lease
90 days, 52 hrs. support ¹ Optional program pkgs. include law office accounting, litigation support, information mgmt. and financial modeling ² Includes CPU, modem, 13MB disk, operating system and word proces- sing	90 days, 52 hrs. support ¹ Optional program pkgs. include law office accounting, litigation support, information mgmt. and financial modeling ² Includes CPU, modem, 30MB disk, operating system and word proces- sing	90 days, 52 hrs. support ¹ Optional program pkgs. include law office accounting, litigation support, information mgmt. and financial modeling ² Includes CPU, modem, 2-40MB disks, work- station, operating sys- tem, and word processing	90 days, 52 hrs. support ¹ Optional program pkgs. include law office accounting, litigation support, information mgmt. and financial modeling ² Includes CPU, modem, 2-74MB disk drives, workstation, operating system, and word process- ing	Maintenance
				Warranty & Support
				REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	Barrister Info. Sys.	Barrister Info. Sys.	Barrister Info. Sys.	Burroughs
MODEL	Barrister/410	Barrister/510	Barrister/520	OFIS 1
SYSTEM CONFIGURATION				
System CPU/Controller	Eclipse S/140	Eclipse S/140	Super Eclipse 145	Intel 8086 processor
CPU/Controller Memory	1024KB to 2048KB	1024KB-2048KB	1024KB to 2048KB	360KB, 512KB, or 753KB
System Storage Media	Disk	Disk	Disk	Disk, diskette
Storage Capacity	148MB—592MB	560MB-2240MB	560MB—2240MB	Dir/37MB; file/160MB
File Organization	By doc. name, page or line number	By doc. name, page or line number	By doc. name, page or line number	Document, page
Max. No. Keystations Supported	32 I/O ¹	32 I/O ¹	32 I/O ¹	Standard: 8; optional: 8
Max. No. Printers Supported	—	—	—	8
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	White on black/reverse	White on black/reverse	White on black/reverse	Grn/blk;amb/blk;wht/blk
Display Buffer Memory	1920 characters	1920 characters	1920 characters	9KB characters
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	30 lines by 84 chars.
Total Characters	1920 characters	1920 characters	1920 characters	2520 characters
Character Generation	7 x 7 dot matrix	7 x 7 dot matrix	7 x 7 dot matrix	8 x 10 dot matrix
Cursor Positioning	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H
Vertical Scrolling	By line, page	By line, page	By line, page	To 121 lines
Horizontal Scrolling	Segmented	Segmented	Segmented	To 200 characters
Display Highlighting	Reverse video	Half-intensity blk g udrsc	Reverse video	Blink, reverse video
Character Size Control	None	None	None	Standard
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Line Justify Display	Standard	Standard	Standard	None
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Diablo 40-cps daisywheel ²	Diablo 40-cps daisywheel ²	Diablo 40-cps daisywheel ²	Qume 55-cps daisywheel ¹
Printer Buffer Memory	768 characters	768 characters	768 characters	Unknown
Character Pitch/Spacing	10/12 proportional	10/12 proportional	10/12 proportional	10/12/15/proportional
Writing Line Width	13"	13"	13"	13.1"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/document separate	W/document separate	W/document separate	W/doc or separate doc
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	English language	English language	English language	Standard
Menus and Prompts	Standard/opt. bypass	Standard/opt. bypass	Standard/opt. bypass	Std./opt. bypass
Forms Input	Automatic	Automatic	Automatic	Standard
Control Character Printout	Standard	Standard	Standard	Standard
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Unlimited	Unlimited	Unlimited	Unlimited
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Title/History	Title/History	Title/History	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard	Standard	Standard	Standard
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	Two	Two	Two	Three
Keylock	None	None	None	Optional
Other	Data base password	Data base password	Data base password	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Automatic via dictionary	Automatic via dictionary	Automatic via dictionary	Manual w/hot zone; scan w/operator decision; auto via algorithm
Auto Input Underlining	Word/continuous	Word/continuous	Word/continuous	Standard
Auto Centering	On page	On page	On page	Standard
REMARKS & OTHER FEATURES				
	¹ Combination of CRT's & daisywheel printers; line printer may be added	¹ Combination of CRT's & daisywheel printers; line printer may be added	¹ Combination of CRT's & daisywheel printers; line printer may be added	¹ Diablo 35-cps daisy-wheel
	² 200, 430, 730, lpm printers available	² 200, 430, 730, lpm printers available	² 200, 430, 730 lpm printers available	[*] Information not updated

Multi-Terminal Word Processing Systems

COMPANY	Computer Consoles, Inc.	CPT Corp.	CPT Corp.	CPT Corp.
MODEL	Office Power	WordPak II	SRS 40 ¹	SRS 45 ¹
SYSTEM CONFIGURATION				
System CPU/Controller	MC-68000	—	—	—
CPU/Controller Memory	2—4MB	—	—	—
System Storage Media	Disk	14" Winchester (1 or 2)	5 1/4" Winchester	Disk/30MB
Storage Capacity	70MB disk	24.8MB per disk usable	5MB to 10MB	30, 60, 70MB,
File Organization	Hierarchical (UNIX)— directories/files	Page or document (range of pages)	Page or document (range of pages)	page or document (range of pages)
Max. No. Keystations Supported	32 ports avail for any combination of key- stations and printers	8	2	8 ²
Max. No. Printers Supported		16 ¹	4 ²	16 ³
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	14" diagonal CRT	14" diagonal CRT	14" diagonal CRT
Color	Green on black	Black on white	Black on white	Black on white
Display Buffer Memory	64KB	10 to 12K characters	10 to 12K characters	10 to 12K characters
Format & Capacity	29 lines by 80 chars.	54 lines by 80 chars.	54 lines by 80 chars.	54 lines by 80 chars.
Total Characters	2320 characters	—	—	—
Character Generation	7 x 9 dot matrix	7 x 9 dot matrix	7 x 9 dot matrix	7 x 9 dot matrix
Cursor Positioning	U, D, R, L, H	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H
Vertical Scrolling	Virtual	Unlimited	Unlimited	Unlimited
Horizontal Scrolling	Virtual	Virtual, to 240 chars.	Virtual, to 240 chars.	Virtual, to 240 chars.
Display Highlighting	Reverse Video	None	None	None
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	None	None
Line Spacing Display	Single, double, triple	Standard, 1, 2, or 3	Standard, 1, 2, or 3	Standard, 1, 2, or 3
Line Justify Display	Interword	None	None	None
Underscore Display	Yes	Standard	Standard	Standard
Sub/Superscript Display	No; on output only	Cn displ hidden arrows	Footnote hidden arrows	Can view hidden arrows
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Thimble-20, 33 & 55-cps	45-cps Rotary ²	45-cps Rotary ³	45-cps Rotary ⁴
Printer Buffer Memory	256 characters	—	—	—
Character Pitch/Spacing	10, 12, 15	10, 12, 15, PS	10, 12, 15, PS	10, 12, 15, PS
Writing Line Width	136 columns at 10 cps ¹	13.6"	13.6"	13.6"
Carriage Paper Width	Up to 16"	14"	14"	14"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	None	None	None
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	Standard	W/doc or on control pg.	W/doc or on control pg.	W/doc or on control pg.
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Standard/or bypass	N/A	N/A	N/A
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	Standard, partial	Standard, partial	Standard, partial
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Standard	7	7	7
Prioritizing	Standard	None	None	None
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Operator assigned title	Oper. asgnd/title/ref/pg#	Oper. asgnd/title/ref/pg#	Oper. asgnd/title/ref/pg#
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard	None	None	None
Document access password	Yes	Standard	Standard	Standard
No. of priority levels	Five	1	1	1
Keylock	On processor	Standard	Standard	Standard
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Scan w/operator decision; manual w/hot zone, auto via algorithm.	Std auto w/operator selection of word-wrap & manual w/hot zone	Std auto w/operator selection of word-wrap & manual w/hot zone	Manual w/Hot Zone; word- wrap; Auto is std deflt oper select auto-select
Auto Input Underlining	Word and Continuous on page and within column	Standard	Standard	Standard
Auto Centering	Standard	Standard, on page	Standard, on page	Standard, on page
REMARKS & OTHER FEATURES	1163 at 12 cps	¹ Prts attchd thru console ² 160-cps Matrix I. 15- pitch not available. Matrix I carriage paper width is 15".	¹ Shared access for 2 terminals to a Disk Unit 30 ² Prtrs attchd. thru consoles ³ 160-cps Matrix I & Page Printer I also available	¹ Central storage for up to 8 CPT consoles ² Consoles may be up to 1000 ft. from the SRS 45 unit ³ Prtrs attchd thru con- soles ⁴ 160-cps Matrix I & Page Printer I also available

Multi-Terminal Word Processing Systems

WP11-040-711
Word Processing Systems

Computer Consoles, Inc.	CPT Corp.	CPT Corp.	CPT Corp.	COMPANY
Office Power	WordPak II	SRS 40	SRS 45 ¹	MODEL
Standard Standard Standard Standard Standard	Standard Standard, during output Standard Standard Standard	Standard Standard, during output Standard Standard Standard	Standard Standard, during output Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard, using inter-document move/copy or using phrase libraries Word or character strings, page	Doc, page, or para assbly; stored & merged w/kybrd text Document name, pg., word, cursor position	Doc, page, or para assbly; stored & merged w/kybrd text Document name, page, word cursor position	Doc, page, or para assbly; stored & merged w/kybrd text Document name, pg., word, cursor position	TEXT EDIT/MERGE FEATURES Document Assembly/Merge Search Capability
C, W, L, P, specified block	C, W, L, P, Page	C, W, L, P, Page	C, W, L, P, Page	Delete Capability
70 characters; 1 string per pass; automatic and selective; foreground	Automatic or semi-automatic; up to 25-char. strings	Automatic or semi-automatic; up to 25-char. strings	Automatic or semi-automatic; up to 25-char. strings	Global Search & Replace
Standard Standard Standard Standard Standard Standard, not restricted Optional	Standard Standard Standard Standard Standard—screen & disk; up to 7 levels Standard—bkgrnd or frgrnd; approx. 100; 240 char. line Standard Optional	Standard Standard Standard Standard Standard—screen & disk; up to 7 levels Standard—bkgrnd or frgrnd; approx. 100; 240 char. line Standard Optional	Standard Standard Standard Standard Standard—screen & disk; up to 7 levels Standard—bkgrnd or frgrnd approx. 100; 240 char. line Standard Optional	Block Move/Copy Column Move/Delete Auto Repagination Auto Renummering Auto Widow/Orphan Adjust Auto File Sort Auto File Select
Standard Optional	Standard Optional	Standard Optional	Standard Optional	Term Dictionary/Glossary Spelling Verification
Standard & optional ¹ Std—ASCII TTY & TCP/IP to 19.2KB 300/1200 baud asynchronous Standard	Standard, on consoles TTY/5600 bps; 3270/9600 bps; 2770/3780/9600 bps; 2780/9600 bps Standard, full function ¹ ; CPT MathPak/Shortcut	Standard, on consoles TTY/5600 bps; 3270/9600 bps; 2770/3780/9600 bps; 2780/9600 bps Standard, full function ¹ ; CPT MathPak/Shortcut	Standard, on consoles TTY/5600 bps; 3270/9600 bps; 2770/3780/9600 bps 2780/9600 bps Standard, full function ² ; CPT MathPak/Shortcut	COMMUNICATIONS Availability Protocols & Speed
Standard	Standard	Standard	Standard	ARITHMETIC CAPABILITY
Standard PERPOS—UNIX C, Cobol, Fortran Basic Electronic Spreadsheet, User-Defined Appl. Pkg. Draft/letter quality line printer; IBM 6670 laser printer; Xerox 2700 laser printer	Standard CP/M Standard ² Standard ² Standard ² Rotary VI (Qume) 40-cps; Rot VII (Qume) 40-cps twin trk; Rot VIII (Ricoh) 45-cps; prntr multi.; dual sheet fdr ³	Standard CP/M Standard ² Standard ² Standard ² Rotary VI (Qume) 40-cps; Rot VII (Qume) 40-cps twin trk; Rot VIII (Ricoh) 45-cps; prntr multi.; dual sheet fdr ³	Standard CP/M Standard ³ Standard ³ Standard ³ Rotary VI (Qume) 40-cps; Rot VII (Qume) 40-cps twin trk; Rot VIII (Ricoh) 45-cps; prntr multi.; dual sheet fdr ⁴	KEYSTROKE STORAGE EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
1981 USA	August 1982 USA	June 1983 USA	September 1983 USA	PERIPHERALS
Depends on configuration	Depends on configuration	Depends on configuration	Depends on configuration	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
N/A	Available	Available	Available	Rental
1/3/5 year.	Available	Available	Available	Lease
Monthly fees	Available	Available	Available	Maintenance
Various packages available	Available	Available	Available	Warranty & Support
¹ Options—bisync. 2780/3780/3270 to 9600 baud; SNA 3270	¹ With comparisons, pause, enter, jump and execute ² Various others avail. on consoles ³ Matrix I/1600-cps; Page Printer I-12pg/min	¹ With comparisons, pause, enter, jump and execute ² Various others available on consoles ³ Matrix I/160-cps Page Printer I-12pg/min	¹ Unit provides private and shared storage for each console, DP & WP files. ² With comparisons, pause, enter, jump and execute ³ Various others available on consoles ⁴ Matrix I/160-cps; Page Printer I-12pg/min	REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	CPT Corp.	Data Processing Design	Exxon Office Systems	Exxon Office Systems
MODEL	Phoenix	Word-11	8411 Controller Series; 8421 Controller Series	8431 Controller Series
SYSTEM CONFIGURATION				
System CPU/Controller	Intel 8085 & 8086	PRO350/PDP-11/VAX	Zilog Z8000 Mod 11 or 21	Zilog Z8000 Model 31
CPU/Controller Memory	512KB	—	512KB to 1MB ¹	512KB to 2MB
System Storage Media	Disk-2 drives	80KB-8MB	Disk, diskette	Disk, diskette
Storage Capacity	312KB-1.2MB per disk	Disk, diskette, mag. tape	18MB expandable ²	80MB exp. to 320MB/disk ¹
File Organization	Page or document	To 1.4 billion chars. By doc. name & account	By document name, number	By document name, no.
Max. No. Keystations Supported	2	60	8 (16 max/8421 Series)	16
Max. No. Printers Supported	—	60 letter-quality ¹	8 (16 max/8421 Series)	16
DISPLAY FEATURES				
Screen Size & Type	High Resolution CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	Black on white	White on gray	White on black	White on black
Display Buffer Memory	12KB characters	2-4KB characters	Virtual	Virtual
Format & Capacity	58 lines by 80 chars.	24 lines by 80 or 132 cha	20 lines by 80 chars.	20 lines by 80 chars.
Total Characters	Scrolls to 240	1920 or 3168 characters	1600 characters	1600 characters
Character Generation	—	5 x 7 or 7 x 9 dot matrix	10 x 12 dot matrix	10 x 12 dot matrix
Cursor Positioning	L, R, U, D, H	L, R along bottom line	L, R, U, D, HL, HR	L, R, U, D, HL, HR
Vertical Scrolling	Unlimited	Standard	Standard	Standard
Horizontal Scrolling	Virtual, to 240 chars.	Standard	Standard to 256 chars.	Standard to 256 chars.
Display Highlighting	Bold	Standard	Reverse video	Reverse video
Character Size Control	—	Standard	None	None
Character Pitch Display	—	Codes only	Standard	Standard
Character Spacing Display	—	Codes only	None	None
Line Spacing Display	Standard, 1, 2, or 3	Codes only	Single space only	Single space only
Line Justify Display	Standard	Codes only	Standard	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Standard	Standard	Standard
Multi-Column Page Display	Standard	Semi-Auto	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Rotary-45 cps ¹	30-to 55-cps daisywheel ¹	Exxon 935 35-cps dsywl ³	Exxon 935 35-cps dsywl ²
Printer Buffer Memory	—	Printer dependent	—	—
Character Pitch/Spacing	10, 12, 15, PS	10/12/15/proportional	10, 12, 15, PS	10, 12, 15, PS
Writing Line Width	13.6"	15.3", 255 chars.	13"/22"	13"/22"
Carriage Paper Width	14"	28"	9.2"/15"	9.2"/15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Matrix I	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/doc or on control pg.	W/document	W/doc or separate doc	W/doc or separate doc
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	N/A	Standard	Standard	Standard
Forms Input	Standard	Standard, w/list proc.	Standard	Standard
Control Character Printout	Standard	Standard	None	None
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	7	Unlimited	Virtual	Virtual
Prioritizing	First in, first out	Standard	FIFO, oper. controlled	FIFO, oper. controlled
System Status Reporting	Standard	Optional	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Oper. asgnd up to 240 ch	Standard	Standard	Standard
System Security	—	Standard	Standard	Standard
Operator log-on password	—	Standard	Standard	Standard
Document access password	Standard	None	By file cabinet	By file cabinet
No. of priority levels	—	Two	Three	Three
Keylock	—	None	None	None
Other	—	—	Confidential documents	Confidential documents
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Auto via algorithm w/ operator option for word wrap or manual	Semi-automatic	Auto. scan w/Hot Zone	Auto. scan w/hot zone
Auto Input Underlining	Standard (Word)	Standard	Standard	Standard
Auto Centering	Standard (page)	Standard	Standard	Standard
REMARKS & OTHER FEATURES	¹ Matrix I/160-cps Page Printer-12 pg per minute	¹ Qume, Xerox, Diablo daisywheel or NEC Spin- writer; twin-track and draft printers [*] Information not updated	¹ To 2MB for 8421 Series ² Storage capacity is 32MB for 8421 Series, expandable to 128MB ³ Model Qume Sprint 10	¹ 600KB/diskette ² Model Qume Sprint 10. The Exxon 940 wide-track and 965 ink jet printers also available

CPT Corp.	Data Processing Design	Exxon Office Systems	Exxon Office Systems	COMPANY
Phoenix	Word-11	8411 Controller Series; 8421 Controller Series	8431 Controller Series	MODEL
Standard Standard/output Standard (can alt. l/r) Standard Standard	Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	Standard Standard Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Assemble & merge are standard	Stored text assembled & merged w/lists, process., boilerplate or kybd. text	Auto. merge to document and/or printer	Auto. merge to document and/or printer	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Document title, pg, line, para, word, character	50-char. strings	By cursor and by character string, 20 attribute search	By cursor and by character string, 20 attribute search	Search Capability
Char, word, para, line, page, disk Automatic or semi-automatic; up to 25-char. strings, background & foreground Standard Standard Standard Standard Standard Standard—screen & disk; up to 7 levels Standard—bkgrnd or frgrnd; approx. 80—up to 240 characters Optional Optional	C, W, L, S, Para, Page; previewed delete 50-char., search; unlimited char. replace, selective Standard Standard Standard Standard Semi-automatic Standard, on disk 10 levels Standard, variable levels over 30 criteria, bkgrnd or foregnd. Standard Standard	C, L, Text Segment, block, & document 40-character string, single or global Standard Standard Standard Standard Standard Standard Standard Standard	C, L, Text Segment, block, & document 40-character string, single or global Standard Standard Standard Standard Standard Standard Standard Standard	Delete Capability Global Search & Replace Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort Auto File Select
Standard hardware TTY 3270/2270/ 3780/2780	Standard Async. ASCII 110 to 9600 bps	Optional Async. batch, 110-9600 bps; Bisync. batch, 2400-4800 bps ¹ Standard	Optional Async. batch, 100-9600 bps; Bisync. batch, 2400-4800 bps ¹ Standard	Term Dictionary/Glossary Spelling Verification
MathPack/Shortcut option full function w/decision capabilities Standard—enhanced w/Shortcut option	Standard, 4-function, col. verifi., in list proc. column summa. Standard, 100 different per user	Standard	Standard	COMMUNICATIONS Availability Protocols & Speed
— CP/M Var languages avail Var languages avail Various appl. avail ¹	Standard CP/M ¹ Standard ² Standard, Basic Various packages avail.	None CP/M CP/M CP/M CP/M ²	None CP/M CP/M CP/M CP/M ²	ARITHMETIC CAPABILITY KEYSTROKE STORAGE EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
Rotary VI(Qume) 40-cps; Rot VII (Qume) 40-cps twin trk; Rot VIII (Ricoh) 45-cps; prntr multi.; dual sheet fdr ²	OCR, photocomp, line printers	Sheet feeder, forms tractor, printer sharing, 50-cps dyswl, 40-cps wide track, & ink jet printers	Sheet feeder, forms tractor printer sharing	PERIPHERALS
Dec 1983 USA	August 1977 USA	July 1983 USA	July 1983 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
Depends on configuration	\$595 to \$9,500	Depending on configuration	Depending on configuration	PRICING & TERMS Purchase
Available	Available	Available	Available	Rental
Available	Available	Available	Available	Lease
Available	By manufacturer	Available	Available	Maintenance
Available	6 months	Available	Available	Warranty & Support
Pricing & support & service may vary with dealers ¹ Integrated graphics, scientific equations and formulas, speed typing, and business graphics ² 6-pen plotter	¹ Simulators available from third party ² Basic, Fortran, Cobol, Pascal, others	¹ Bisynchronous communications accessed through electronic mail interface ² Legal applications & various others available	¹ Bisynchronous communications accessed through electronic mail interface ² Legal applications & various others available	REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	Interactive Computer	Interactive Computer	Interactive Computer	Interactive Computer
MODEL	System 900	900 Series	1600 Series	8600 Series
SYSTEM CONFIGURATION				
System CPU/Controller	DEC PDP 11-34/11-70	Intel 8085	Z80A microprocessor	Intel 8086
CPU/Controller Memory	192KB	192KB	64KB	512KB
System Storage Media	Disk, diskette	IFD, diskette	Disk, diskettes	Disk, diskette
Storage Capacity	516KB chars./diskette	IFD to 20MB/dkt to 4MB	1.6MB	To 4MB
File Organization	—	By document name & page number	By document name & page number	By document name & page number
Max. No. Keystations Supported		5	2 or more	4
Max. No. Printers Supported		2	2 or more	5
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	9" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	—	Green on dark green	Green on dark green	Green on dark green
Display Buffer Memory	2KB characters	6KB characters	Not available	8KB characters
Format & Capacity	21 lines by 96 chars.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	2016 characters	1920 characters	1920 characters	1920 characters
Character Generation	7 x 9 dot matrix	9 x 11 dot matrix	9 x 11 dot matrix	10 x 14 dot matrix
Cursor Positioning	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H	L, R, U, D, H
Vertical Scrolling	Standard	Standard	Standard	Standard
Horizontal Scrolling	None	None	Segmented	None
Display Highlighting	Standard	None	None	Standard
Character Size Control	Standard	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	None	Standard	Standard
Line Spacing Display	None	None	Standard	None
Line Justify Display	Standard	Standard	Standard	Standard
Underscore Display	Standard	None	Standard	Standard
Sub/Superscript Display	None	None	None	None
Multi-Column Page Display	Standard	Standard	Standard	None
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Diablo daisy 45-cps ²	120-cps dot matrix	Various models	Various models
Printer Buffer Memory	—	—	—	—
Character Pitch/Spacing	To 12	Loadable font	Various	—
Writing Line Width	13"	7 1/2"	13"	13"
Carriage Paper Width	15"	9"	14"	14"
First Line Forms Advance	Standard	Standard	—	Standard
End-of-Page Stop	Standard	Standard	—	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	—	None
Non-Adjust Printout	Standard	Standard	None	Standard
Bidirectional Printout	None ²	Standard	Optional	Standard
Simultaneous Input/Output	None	None	Optional	Optional
GENERAL FEATURES				
Stored Format	Standard	Standard	Standard	Standard
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	—	Standard	None	Standard
Forms Input	Standard	—	None	Standard
Control Character Printout	Standard	Standard	—	Standard
Printout Queuing	None	None	Optional	Standard
No. of Pages/Documents	—	—	—	Unlimited
Prioritizing	—	—	Optional	Standard
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	—	Standard	Standard	Standard
Docu. Title/Docu. History	—	By document title/project	By document title	By document title
System Security	Optional	Standard	None	Standard
Operator log-on password	—	—	—	Standard
Document access password	—	—	—	Standard
No. of priority levels	—	—	—	1
Keylock	—	Optional	—	None
Other	—	—	—	—
TEXT INPUT FEATURES				
Auto Decimal Alignment	None	None	Standard	Standard
Hyphenation	Manual discretionary hyphens	Man. w/hot zone; scan w/operator decision	Manual w/hot zone; scan w/operator decision; auto via algorithm	Manual w/Hot Zone
Auto Input Underlining	Standard	Continuous	—	Continuous/word
Auto Centering	Standard	On page	On page	Standard
REMARKS & OTHER FEATURES	1180-cps dot matrix printers & 300 lpm bidirectional line printers also avail.; 200-cps multi-font dot matrix printer			

Multi-Terminal Word Processing Systems

WP11-040-715
Word Processing Systems

Interactive Computer ¹	Interactive Computer	Interactive Computer	Interactive Computer	COMPANY
System 900	900 Series	1600 Series	8600 Series	MODEL
Standard Standard Standard None Standard	Standard Standard during output Standard None Standard	Standard Standard during output Standard None Standard	Standard Standard during output Standard None Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Stored text assembled & merged with keyboarded text By document & page no., & file name	Stored text assembled & merged with keyboarded text By character string	Standard; stored text assembled & merged w/ keyboarded text By character string; text key segments	Stored text assembled & merged with keyboarded text By document name, page no., & file name	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
C, W, L, S, P specified block Keyword global replace	C, W, L, S, P, or specified block Auto & selective; up to 30 char. string	C, W, L, S, P, remainder, specified block, column Up to 30 char. string; any mounted file	C, W, L, S, P, remainder, specified block, column Standard	Search Capability
Standard None Standard — None Standard	Standard None Standard Standard — None	Standard None Standard Standard — None	Standard None Standard Standard — None	Delete Capability
Standard	None	None	Standard	Global Search & Replace
None —	None None	None None	Optional Optional	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Optional ASCII & IBM CMC at 110 to 4800 baud	Optional ASCII & IBM CMC at 50 to 19,200 baud	Optional ASCII & IBM CMC at 75 to 9600 baud	Optional ASCII & IBM CMC at 50 to 19,200 baud	Auto File Select
Full	None	None	None	Term Dictionary/Glossary Spelling Verification
—	None	None	Standard	COMMUNICATIONS Availability Protocols & Speed
Standard — APL	Optional Star Basic Star Basic	None CP/M —	Standard Various ¹ —	ARITHMETIC CAPABILITY
Full accounting, inven., financial modeling ¹ Line printer, punch card reader, RS-232 devices ²	Various ¹ Various printers, RS-232 devices, modem	Various ¹ Various printers, RS-232 devices, modem	Various ² Line printer, punch card reader, RS-232 devices, mark sense reader	KEYSTROKE STORAGE
January 1979 Canada	— USA	1980 USA	— USA	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
—	\$6,000 to \$25,000 depending on config. Not available	\$2,000 to \$10,000 depending on config. Not available	\$10,000 to \$30,000 —	PERIPHERALS
From \$450 to \$500/mo. (5-yr.) Approx. \$150/mo.	Available	Available	Available	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
90 days parts & labor; 1 day training ¹ Mailing list/list maint., cost acct. & others ² Also mark sense reader	Time and materials or annual contract 90 days, parts and labor ² ¹ Large number of fully integrated pkgs. avail. ² On-site training—1 day; phone support	Time and materials or annual contract 90 days, parts and labor ² ¹ Large number of standard applications ² Training and phone support available	Time and materials or annual contract 90 days, parts and labor ¹ CPM 86—MPM 86 M-DOS-MBOS-UNIX & OASIS ² All business and financial planning applications	PRICING & TERMS Purchase
				Rental
				Lease
				Maintenance
				Warranty & Support
				REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	IBM	IBM	IBM	IBM
MODEL	5520/020	5520/021	5520/030	5520/031
SYSTEM CONFIGURATION				
System CPU/Controller	IBM 5525	IBM 5525	IBM 5525	IBM 5525
CPU/Controller Memory	Info. not available	Info. not available	Info. not available	Info. not available
System Storage Media	Disk, diskette	Disk, diskette	Disk/diskette	Disk, diskette
Storage Capacity	29MB/disk; 1MB/diskt.	29MB/disk; 1MB/diskt.	29MB/disk; 1MB/dskt.	29MB/disk; 1MB/dskt.
File Organization	Document, page	Document, page	Document, page	Document, page
Max. No. Keystations Supported	6	8	12	12
Max. No. Printers Supported	3	3	6	6
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT
Color	Green on dark	Green on dark	Green on dark	Green on dark
Display Buffer Memory	8KB	8KB	8KB	8KB
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	8 x 16 dot matrix	8 x 16 dot matrix	8 x 16 dot matrix	8 x 16 dot matrix
Cursor Positioning	Contextual C, W, L, P	Contextual C, W, L, P ¹	Contextual C, W, L, P	Contextual C, W, L, P ¹
Vertical Scrolling	Line, page	Line, page	Line, page	Line, page
Horizontal Scrolling	To 172 characters	To 255 characters	To 172 characters	To 255 characters
Display Highlighting	Standard	Standard	Standard	Standard
Character Size Control	None	None	None	None
Character Pitch Display	12-pitch	12-pitch	12-pitch	12-pitch
Character Spacing Display	None	None	None	None
Line Spacing Display	Single space	Single space	Single space	Single space
Line Justify Display	None	None	None	None
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Standard ²	Standard	Standard ²
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	40, 60-cps daisywheel ¹	40, 60-cps daisywheel ³	40, 60-cps daisywheel ¹	40, 60-cps daisywheel ³
Printer Buffer Memory	Unknown	Unknown	Unknown	Unknown
Character Pitch/Spacing	10/12/15/proportional	10/12/15/proportional	10/12/15/proportional	10/12/15/proportional
Writing Line Width	13.2"	13.2" or 17"	13.2"	13.2" or 17"
Carriage Paper Width	15.4"	15.4" or 19"	15.4"	15.4" or 19"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/doc or separate doc	W/doc or separate doc	W/doc or separate doc	W/doc or separate doc
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	None	None	None
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Unlimited	Unlimited	Unlimited	Unlimited
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard	Standard	Standard	Standard
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	Three	Four	Three	Three
Keylock	Optional	Optional	Optional	Optional
Other	None	None	None	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Manual, adjustable hot zone, scan	Manual, adjustable hot zone, scan	Manual, adjustable hot zone, scan	Manual, adjustable hot zone, scan
Auto Input Underlining	By word	By word	By word	By word
Auto Centering	Standard	Standard	Standard	Standard
REMARKS & OTHER FEATURES	¹ 5258 ink jet printer, & 6670 laser printer	¹ Also bidirectional cursor. ² Also displayable symbols ³ 5258 ink jet printer & 6670 laser printer	¹ 5259 ink jet printer & 6670 laser printer	¹ Also directional cursor ² Also displayable symbol ³ 5258 ink jet printer & 6670 laser printer

Multi-Terminal Word Processing Systems

WP11-040-717
Word Processing Systems

IBM	IBM	IBM	IBM	COMPANY
5520/020	5520/021	5520/030	5520/031	MODEL
Standard (1, 1½, 2, 3) Standard Standard None Standard ¹	Standard (1, 1½, 2, 3) Standard Standard Standard Standard ¹	Standard (1, 1½, 2, 3) Standard Standard None Standard	Standard (1, 1½, 2, 3) Standard Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard, background or interactive	Standard, background or interactive	Standard, background or interactive	Standard, background or interactive	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By doc., page no., char- acter string, C, W, L, P	By doc., page no., char- acter string, C, W, L, P	By doc., page no., char- acter string, C, W, L, P	By doc., page no., char- acter string, C, W, L, P	Search Capability
By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background 4 search options	By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background, 4 search options	By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background, 4 search options	By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background, 4 search options	Delete Capability Global Search & Replace
Standard Standard Standard Standard Standard Standard, 6 levels	Standard Standard Standard Standard Standard Standard, 6 levels	Standard Standard Standard Standard Standard Standard, 6 levels	Standard Standard Standard Standard Standard Standard, 6 levels	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Standard	Standard	Standard	Standard	Auto File Select
None None	Standard Standard	None None	Standard Standard	Term Dictionary/Glossary Spelling Verification
Standard SDLC, bisynchronous, 1200-9600 bps	Standard ² SDLC, bisynchronous, 1200-9600 bps	Standard SDLC, bisynchronous, 1200-9600 bps	Standard ¹ SDLC, bisynchronous, 1200-9600 bps	COMMUNICATIONS Availability Protocols & Speed
Standard w/rec. proc.	Standard w/rec. proc.	Standard w/rec. proc.	Standard w/rec. proc.	ARITHMETIC CAPABILITY
Stored procedures	Stored procedures	Stored procedures	Stored procedures	KEYSTROKE STORAGE
None None None None None	None None None None None	None None None None None	None None None None None	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
5321 Mag Card unit	5321 Mag Card unit	5321 Mag Card unit	5321 Mag Card unit	PERIPHERALS
February 1980 USA	March 1983 USA	November 1980 USA	March 1983 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$16,780	\$18,780	\$31,260	\$33,260	Rental
\$1172	\$1326	\$1704	\$1858	Lease
\$1120	\$1265	\$1630	\$1775	Maintenance
Available	Available	Available	Available	Warranty & Support
Available	Available	Available	Available	REMARKS & OTHER FEATURES
Uses IBM 5520 program Version 1. ¹ Background or inter- active	Uses IBM 5520 program Version 2 ¹ Background or inter- active ² 3270 Emulation (SNA and BSC) available	Uses IBM 5520 program Version 1	Uses IBM 5520 program Version 2 ¹ 3270 Emulation (SNA and BSC) available	

Multi-Terminal Word Processing Systems

COMPANY	IBM	IBM	IBM	IBM
MODEL	5520/032	5520/040	5520/050	5520/051
SYSTEM CONFIGURATION				
System CPU/Controller	IBM 5525	IBM 5525	IBM 5525	IBM 5525
CPU/Controller Memory	Info. not available	Info. not available	Info. not available	Info. not available
System Storage Media	Disk, diskette	Disk, diskette	Disk/2 Dskt.	Disk/2 Dskt.
Storage Capacity	58MB/disk; 1MB/dskt.	65MB/disk; 1MB/dskt.	130MB/disk; 23MB/dskt.	130MB/disk; 23MB/dskt.
File Organization	Document, page	Document, page	Document, page	Document, page
Max. No. Keystations Supported	15	18	18	18
Max. No. Printers Supported	12	12	12	12
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT
Color	Green on dark	Green on dark	Green on dark	Green on dark
Display Buffer Memory	8KB	8KB	8KB	8KB
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	8 x 16 dot matrix	8 x 16 dot matrix	8 x 16 dot matrix	8 x 16 dot matrix
Cursor Positioning	Contextual C, W, L, P ¹	Contextual C, W, L, P	Contextual C, W, L, P	Contextual C, W, L, P ¹
Vertical Scrolling	Line, page	Line, page	Line, page	Line, page
Horizontal Scrolling	To 255 characters	To 172 characters	To 172 characters	To 255 characters
Display Highlighting	Standard	Standard	Standard	Standard
Character Size Control	None	None	None	None
Character Pitch Display	12-pitch	12-pitch	12-pitch	12-pitch
Character Spacing Display	None	None	None	None
Line Spacing Display	Single space	Single space	Single	Single space
Line Justify Display	None	None	None	None
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard ²	Standard	Standard	Standard ²
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	40, 60-cps daisywheel ³	40, 60-cps daisywheel ¹	40, 60-cps daisywheel	40, 60-cps daisywheel ³
Printer Buffer Memory	Unknown	Unknown	Unknown	Unknown
Character Pitch/Spacing	10/12/15/proportional	10/12/15/proportional	10/12/15/proportional	10/12/15/proportional
Writing Line Width	13.2" or 17"	13.2"	13.2"	13.2" or 17"
Carriage Paper Width	15.4" or 19"	15.4"	15.4"	15.4" or 19"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/doc or separate doc	W/doc or separate doc	W/doc or separate doc	W/doc or separate doc
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Standard	Standard	Standard	Standard
Forms Input	Standard	Standard	Standard	Standard
Control Character Printout	None	None	None	None
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	Unlimited	Unlimited	Unlimited	Unlimited
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard	Standard	Standard	Standard
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	Three	Three	Three	Four
Keylock	Optional	Optional	Optional	Optional
Other	None	None	None	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Manual, adjustable hot zone, scan	Manual, adjustable hot zone, scan	Manual, adjustable hot zone, scan	Manual, adjustable hot zone, scan
Auto Input Underlining	By word	By word	By word	By word
Auto Centering	Standard	Standard	Standard	Standard
REMARKS & OTHER FEATURES	¹ Also directional cursor ² Also displayable symbol ³ 5258 ink jet printer & 6670 laser printer	¹ 5258 ink jet printer & 6670 laser printer	¹ 5258 ink jet printer & 6670 laser printer	¹ Also directional cursor ² Also displayable symbol ³ 5258 ink jet printer & 6670 laser printer

Multi-Terminal Word Processing Systems

WP11-040-719
Word Processing Systems

IBM	IBM	IBM	IBM	COMPANY
5520/032	5520/040	5520/050	5520/051	MODEL
Standard (1, 1½, 2, 3) Standard Standard Standard Standard	Standard (1, 1½, 2, 3) Standard Standard None Standard	Standard (1, 1½, 2, 3) Standard Standard None Standard ¹	Standard (1, 1½, 2, 3) Standard Standard Standard Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard, background or interactive	Standard, background or interactive	Standard; background or interactive	Standard, background or interactive	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By doc., page no., char- acter string, C, W, L, P	By doc., page no., char- acter string, C, W, L, P	By doc., page no., char- acter string, C, W, L, P	By doc., page no., char- acter string, C, W, L, P	Search Capability
By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background, 4 search options	By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background, 4 search options	By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background, 4 search options	By document, page, block, C, W, L, P Standard, 79 character, 48 strings, background, 4 search options	Delete Capability
Standard Standard Standard Standard Standard Standard, 6 levels	Standard Standard Standard Standard Standard Standard, 6 levels	Standard Standard Standard Standard Standard Standard, 6 levels	Standard Standard Standard Standard Standard Standard, 6 levels	Global Search & Replace
Standard	Standard	Standard	Standard	Block Move/Copy Column Move/Delete Auto Repagination Auto Renummering Auto Widow/Orphan Adjust Auto File Sort
Standard Standard	None None	None None	Standard Standard	Auto File Select
Standard ¹ SDLC, bisynchronous, 1200-9600 bps	Standard SDLC, bisynchronous, 1200-9600 bps	Standard SDLC, bisynchronous, 1200-9600 bps	Standard ¹ SDLC, bisynchronous, 1200-9600 bps	Term Dictionary/Glossary Spelling Verification
Standard w/rec. proc.	Standard w/rec. proc.	Standard w/rec. proc.	Standard w/rec. proc.	COMMUNICATIONS Availability Protocols & Speed
Stored procedures	Stored procedures	Stored procedures	Stored procedures	ARITHMETIC CAPABILITY
None None None None None	None None None None None	None None None None None	None None None None None	KEYSTROKE STORAGE
5321 Mag Card unit	5321 Mag Card unit	5321 Mag Card unit	5321 Mag Card unit	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
March 1983 USA	November 1980 USA	November 1980 USA	March 1983 USA	PERIPHERALS
\$39,740	\$41,280	\$50,170	\$52,170	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
\$2350	\$2479	\$3002	\$3156	PRICING & TERMS Purchase
\$2245	\$2370	\$2870	\$3015	Rental
Available	Available	Available	Available	Lease
Available	Available	Available	Available	Maintenance
Uses IBM 5520 program Version 2 13270 Emulation (SNA and BSC) available	Uses IBM 5520 program Version 1	Uses IBM 5520 program Version 1 ¹ Background or inter- active	Uses IBM 5520 program Version 2 13270 Emulation (SNA and BSC) available	Warranty & Support
				REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	IBM	Lanier	Megadata Corp.	NBI
MODEL	8100/DOSF ¹	System 5000 Network Controller	8174 Model 1	OASys 8
SYSTEM CONFIGURATION				
System CPU/Controller	8130/8140/8150	Z80B-6MHZ	8188 Terminal	System 8 ICU
CPU/Controller Memory	256KB to 2MB	256KB to 1024KB	128KB to 256KB	Intel 8086/512KB
System Storage Media	Disk/diskette	Rigid disk	5 1/4" Winchester	Disk, diskette
Storage Capacity	29MB to 639MB	10MB to 100MB	700KB	10MB/disk ¹
File Organization	By document name	—	By document	By directory
Max. No. Keystations Supported	62 ²	Up to 40	16	6 ²
Max. No. Printers Supported	To a combined max. of 61 coax devices	Up to 30	8	4 ²
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT	12" CRT	15" CRT	14" diagonal CRT
Color	Green on black	Green on charcoal	Lt. green on dk green	Gray/white, amber/black
Display Buffer Memory	1920 to 3440 chars.	12,240 Temp. Mode	—	4000 characters
Format & Capacity	24 lines by 80 chars.	24 lines x 80 char.	—	25 lines by 80 chars.
Total Characters	1920-3440 characters	1920	1920	2000 characters
Character Generation	7 x 9; 9 x 16 dot matrix	7 x 9 dot matrix	—	9 x 13 dot matrix
Cursor Positioning	L, R, U, D, H	13 positions	U, D, L, R, H	L, R, U, D, next/prev. pg
Vertical Scrolling	Page segment	Virtual	72 lines	Line, page, virtual
Horizontal Scrolling	Page segment	144 characters	Up to 132 char/one screen	Char/word/end-begin line
Display Highlighting	Stand., reverse ³	Standard	Bold	Reverse video
Character Size Control	None	None	No	None
Character Pitch Display	None	Format display	No	Displays line ends
Character Spacing Display	None	Format display	Yes	Displays line ends
Line Spacing Display	Browse mode only (1,2&3)	Format display	No	Displays line count
Line Justify Display	Browse mode only	Format display	Yes	Displays line ends
Underscore Display	Standard	Single & double	Yes	Standard
Sub/Superscript Display	Codes only	Code display	No	Standard
Multi-Column Page Display	Standard	Standard	Yes	Standard
Stored Form Recall/Display	None	Standard	Yes	Standard
Control Code Display	Standard	Standard	No	Standard
Format Statement Display	Standard	Standard	Yes	Standard
PRINTER FEATURES				
Printer Type & Speed	Daisywheel 40,55,60-cps	Impact 27 cps-45 cps ¹	55 cps-letter quality	35, 55-cps daisywheel ³
Printer Buffer Memory	125 to 650 LPM	Key-to-disk to print	—	2KB RAM, 4KB ROM
Character Pitch/Spacing	Up to 210KB	10, 12, 15, 20	10, 12, 15	6/8/10/12/15 ⁴
Writing Line Width	10/12/13/15	Impact 14", Matrix 132	132 characters	13.2"
Carriage Paper Width	13.1"	Impact 16.5", Matrix 132	13.5"	15"
First Line Forms Advance	15"	Standard	Yes	Standard
End-of-Page Stop	Standard	Standard	Yes	Standard
Justified Printout	Standard (Interword Sp.)	Standard	Yes	Standard
Sub/Superscript Printout	Standard	Standard	Yes	Standard
Non-Adjust Printout	Standard	Standard	Yes	Standard
Bidirectional Printout	Standard	Standard	Yes	Standard
Simultaneous Input/Output	Standard	Standard	No	Standard
GENERAL FEATURES				
Stored Format	Standard	Standard	W/document	W/in direc. or w/doc.
Default Format	Standard	Standard	Yes	Standard w/in direc.
Stored Multiple Formats	Standard	Standard	Yes	Standard
Machine Dialog	Standard	—	Help facilities	Standard
Menus and Prompts	Standard	Standard	Yes	Menu bypass
Forms Input	None	Standard	Automatic	Optional, auto
Control Character Printout	Standard	None	No	None
Printout Queuing	Standard	Elec. Mail option	Yes	Standard
No. of Pages/Documents	Unlimited	Index report	Yes	72 documents
Prioritizing	Standard	Elec. Mail option	No	Standard
System Status Reporting	Standard	Standard	Yes	Standard via direcs.
Automatic Indexing	None	Standard	Yes	Standard
Docu. Title/Docu. History	Standard	Title, Description	Yes	Standard
System Security	Standard	Standard	Optional	Standard
Operator log-on password	Standard	None	Optional	Standard, 8 chars.
Document access password	Standard	Standard	Optional	Standard, 3 chars.
No. of priority levels	Standard	1	Optional	Three
Keylock	None	None	Optional	None
Other	Standard	—	Auto para numbering	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Automatic	Standard	Yes	Standard
Hyphenation	Standard	Standard (scan)	Auto	System scan, adjustable hot zone
Auto Input Underlining	Standard	Standard & double	Continuous	Word & continuous
Auto Centering	Standard	Standard	Page & column	On pg., w/in col.
REMARKS & OTHER FEATURES	¹ Distributed Office Support Facility ² To a combined maximum of 62 coax devices; additional displays and printers available on loop ³ Only available on an 8775	¹ Dot matrix- 80 cps to 150 cps		¹ 185KB-1MB chars/diskt ² Max. 8 I/O devices ³ Options: wide-track, twin-track, line printers; 35-cps 10/12/15-pitch spacing printer std. laser ⁴ Proportional

WP11-040-721
Word Processing Systems

SEPTEMBER 1984

Multi-Terminal Word Processing Systems

COMPANY	NBI	NCR Corporation	NCR Corporation	NCR Corporation
MODEL	OASys 64	WS 140, Master OS	WS 150, Master OS	WS 210, Master OS
SYSTEM CONFIGURATION				
System CPU/Controller	System 64 ICU	Intel 8086	Intel 8086	Intel 8086
CPU/Controller Memory	Intel 8086/512KB-1MB	512KB	512KB	640KB
System Storage Media	Disk, diskette	Mini-Diskette + 5MB Win.	Mini-disk. + 16MB Win.	8" diskette, 8" Winch.
Storage Capacity	20/30/60/120MB sys.	5.6MB + local file ¹	16.6MB + local storage ¹	120.6MB + local file stor
File Organization	By directory	Document	Document	Document
Max. No. Keystations Supported	Up to 24 WP stations ¹	3	5	16
Max. No. Printers Supported	8; to 12 optional ¹	3	5	16
DISPLAY FEATURES				
Screen Size & Type	14" diagonal CRT	15" diagonal CRT	15" diagonal CRT	15" diagonal CRT
Color	Gray/white, amber/black	Green on black	Green on black	Green on black
Display Buffer Memory	4000 characters	Dynamic, 8KB min.	Dynamic 8KB minimum	Dynamic 8KB minimum
Format & Capacity	25 lines by 80 chars.	28 lines by 80 chars.	28 lines by 80 chars.	28 lines by 80 chars.
Total Characters	2000 characters	—	—	10 x 15 pixels
Character Generation	9 x 16 dot matrix	L, R, U, D ²	L, R, U, D ²	L, R, U, D ²
Cursor Positioning	L, R, U, D, next/prev. pg	Line/page/virtual	Line/page/virtual	Line/page/virtual
Vertical Scrolling	Line, page, virtual	Segmented to 256 chars.	Segmented to 256 chars.	Segmented to 256 chars.
Horizontal Scrolling	Char, word, end/begin line	Hlf intensity, rev video	Hlf insty rev vid	Hlf intensity rev video
Display Highlighting	Reverse video	None	None	None (zoom, std.)
Character Size Control	None	None	None	None
Character Pitch Display	Displays line ends	None	None	None (zoom, std.)
Character Spacing Display	Displays line ends	1, 1½, 2, 3	1, 1½, 2, 3	1, 1½, 2, 3
Line Spacing Display	Displays line count	Standard	Standard	Standard
Line Justify Display	Displays line ends	Standard	Standard	Standard
Underscore Display	Standard	Half intensity	Half intensity	Half intensity
Sub/Superscript Display	Standard	Statistics only	Statistics only	Statistics only
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Std./help funct. add'l.	Std./help disp. add'l.	Standard/help funct.
Format Statement Display	Standard	Thimble 20, 33, 55 cps ³	Thimble, 20, 33, 55 cps ³	Thimble 20, 33, 55-cps ³
PRINTER FEATURES				
Printer Type & Speed	35, 55-cps daisywheel ²	256 to 2KB characters	256 to 2K characters	256 to 2KB characters
Printer Buffer Memory	2KB RAM, 4KB ROM	10-, 12-, 15-pitch	10-, 12-, 15-pitch	10-, 12-, 15-pitch
Character Pitch/Spacing	6/8/10/12/15 ³	13.6" (std.); 22" (wide)	13.6" (std.); 22" (wide)	13.6" (std.) 22" (wt)
Writing Line Width	13.2"	16" (std.); 24" (wide)	16" (std.); 24" (wide)	16" (std.) 24" (wt)
Carriage Paper Width	15"	Standard	Standard	Standard
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/in direc. or w/doc.	Standard	Standard	Standard
Default Format	Standard w/in direc.	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Menu bypass	Standard	Standard	Standard
Forms Input	Optional, auto.	—	—	None
Control Character Printout	None	None	None	Standard
Printout Queuing	Standard	Standard	Standard	Limited to media
No. of Pages/Documents	72 documents	Limited to media	Limited to media	Standard
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Standard via dirs.	Standard	Standard	Standard
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard, 8 chars.	Standard	Standard	Standard
Document access password	Standard, 3 chars.	Standard	Standard	Standard
No. of priority levels	Three	Four	Four	4
Keylock	None	—	—	—
Other	None	—	—	Standard
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Scan w/operator decision
Hyphenation	System scan, adjustable hot zone	Scan w/operator decision Std. Auto via algorithm opt./dictionary	Scan w/operator decision Std. Auto via algorithm—opt./dictionary	Std. Auto via algorithm opt./dictionary
Auto Input Underlining	Word & continuous	Standard	Standard	Standard
Auto Centering	On pg., w/in col.	Between margins, tabs	Between margins, tabs	Between margins, tabs
REMARKS & OTHER FEATURES				
	¹ Or up to 100 personal computers	¹ WS 141, 151, 211 sup-	¹ WS 141, 151, 211 sup-	¹ WS 141, 151, 211 sup-
	² Options: wide-track, twin-track, line printers; 35-cps 10/12/15-pitch printer, laser	port 5, 16 or 120MB on-line local file storage respectively	port 5, 16 or 120MB on-line local file storage, respectively	port 5, 16 or 120MB on-line local file storage, respectively
	³ Proportional	² Begin/end doc; begin page, next page, previous page	² Begin/end doc; begin page, next page, prev. page	² Begin/end doc; begin page, next page, prev. page
		³ Dot matrix 120-cps	³ Dot matrix 120-cps	³ Dot matrix 120-cps
		⁴ Information not updated	⁴ Information not updated	⁴ Information not updated

NBI	NCR Corporation	NCR Corporation	NCR Corporation	COMPANY
OASys 64	WS 140, Master OS	WS 150, Master OS	WS 210, Master OS	MODEL
Standard During input, output Std, odd/even/all pages W/in doc. Standard	Standard Standard Standard None Standard	Standard Standard Standard None Standard	Standard Standard Standard None Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Standard	Standard	Standard	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
Doc, Pg/control char. 77-char. string	Global, go to home, find string	Global; go to page; find string	Global, go to page, find string	Search Capability
C, W, Block, line, document, column Standard; auto or selec- tive replace/delete; 77-char. string, fore- ground, matches caps Standard Standard Standard Standard Standard Optional; on disk 70 levels Optional, 70 levels 6 criteria, foreground/ background Standard Standard	BS,C,W,L,P,S,block,page Single string, auto and selective, 255 chars. foreground Standard Statistics only Standard Standard Standard Optional 10 level Optional	BS,C,W,L,P,S block,page Single string, auto and selective; 255 chars. foreground Standard None Standard Standard Standard Optional 10 level Optional; 9 criteria Foreground	BS,C,W,L,P,S block, page Single string, auto and selective 255 chars. foreground Standard None Standard Standard Standard Optional, 10 level, alpha num, ascending, descend Optional; 9 criteria Foreground	Delete Capability Global Search & Replace Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort Auto File Select
Optional Asynch. ASCII, 2741, 2770 TWX, TTY, 2780, 3780, 110 to 9600 bps ¹ Optional, full-function, col. & row verify	Optional Asynch. TTY, 300-1200; BSC 2780/3780, 2400- 9600 ¹ Row, column, modeling	Optional Asynch. TTY, 300-1200; BSC 2780/3780, 2400-9600 Row, column, modeling	Optional Asynch TTY, 300-1200; BSC 2780/3780, 2400- 9600 ¹ Row, column, modeling	Term Dictionary/Glossary Spelling Verification COMMUNICATIONS Availability Protocols & Speed
Optional	Standard; single key undo, redo, recovery	Standard; single key redo, undo, recovery	Standard; single key undo, redo, recovery	ARITHMETIC CAPABILITY
None MS-DOS GW Basic None Multiplan, dBase II, Energraphics Letter quality, dot matrix and laser printer options, sheet feeder, OCR, photocomp 17MB mag tape	To be announced CP/M-86 MS-DOS Basic, Cobol, Fortran ² Basic Financial modeling/ MultiPlan Plotters, forms tractor, shared peripheral inter- face, single/dual sheet, envelope feeders, modems, draft pr, acoustic hd.	To be announced CP/M-86 MS-DOS Basic, Fortran, Cobol ¹ Basic Financial modeling/ MultiPlan Forms tractor, shared peripheral interface, single/dual/envelope feeders, modems, draft pr, acoustic couplers ²	Independently run ² CP/M-86 MS-DOS Bas, Cob, Fort, Pasc Basic Financial modeling/Multi- Plan Business graphics, plotters, formstractor, single, dual sheet, en- velope feeders, modems, draft pr., acoustic hd.	KEYSTROKE STORAGE EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
December 1981 USA	August 1982 USA 1	January 1983 USA	April 1982 USA	PERIPHERALS
Depends on configuration	\$6,395	\$9,650 up	\$12,600 up (incl. 10Mb)	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
Depends on configuration	\$349/mo. (12 mo.) \$308/mo. (36 mo.)	\$493/mo. (12 mo.) \$438/mo. (36 mo.)	\$705/mo. (12 mo.) \$618/mo. (36 mo.)	Rental
Depends on configuration	Available	Available	Available	Lease
Depends on configuration	\$990/year	\$1,370	\$2,170/yr.	Maintenance
90 days warranty	90 days + 800 number	90 days + 800 number	90 days + 800 num + tech. suppt. rep.	Warranty & Support
Tape back-up package available, dual tray sheet feeder, standalones cable connected, and ICU link feature avail. ¹ VT 100, 3270 SNA, 3270 bisync.	¹ 3270, 2400-9600; two—RS—232—C ports; one—RS—422 port; auto electronic mail inter- connect ² Pascal	¹ Pascal ² 3270, 2400-9600; two— RS-232-C ports, one— RS-422 port, auto electronic mail inter- connect	¹ 3270, 2400-9600 ² Each cluster wkstn. runs application program inde- pendently; auto elec- tronic mail interconnect	REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	Philips Info. Sys. Inc.	Syntrex	Syntrex	Wang
MODEL	2002; 2004; 2005	Gemini	Polaris	OIS 50
SYSTEM CONFIGURATION				
System CPU/Controller	2004; 2005	Multiple 8086	Multiple 8086	Z80 microprocessors
CPU/Controller Memory	256KB	312KB	312KB	64KB/CPU, 64KB/Wkstn.
System Storage Media	Winchester/Diskette	Redundant Win. disk	Win. disk, not redundant	Disk, diskette
Storage Capacity	27MB; 45MB	26MB-580MB	10-130MB	10MB/disk
File Organization	User area by document name	By doc., folder, drawer, cabinet, file room	Document, folder, drawer, cabinet, file room	By doc. and page number
Max. No. Keystations Supported	1-4	14	14	4
Max. No. Printers Supported	1-4	14 ¹	14	4 I/O devices total
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	Green on gray	Wht on black or Black/wh	White on black	Green on gray
Display Buffer Memory	8KB characters	8.5KB characters	8.5KB	8KB characters
Format & Capacity	31 lines by 80 chars.	25 lines by 80 chars.	25 lines by 80 chars.	24 lines by 80 char.
Total Characters	2480 characters	2000 characters	2000 characters	1920 characters
Character Generation	8 x 15 dot matrix	9 x 12 dot matrix	9 x 12 dot matrix	7 x 8 dot matrix
Cursor Positioning	L, R, U, D, H, E	L,R,U,D, Word, Sent, Pa	L, R, U, D, Word, sen,pa	L, R, U, D, H, rev
Vertical Scrolling	Standard to 94 lines	Virtual	Virtual	By partial page
Horizontal Scrolling	Virtual to 250 chars.	Virtual	Virtual	Segmented
Display Highlighting	Standard; halftone	Bold, reverse	Bold/reverse	Bold
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	None	Standard	Standard	Fixed
Line Spacing Display	None	None	None	None
Line Justify Display	None	Standard	Standard	None
Underscore Display	Standard	1, 2	1,2	Standard
Sub/Superscript Display	Standard	Codes	Codes	Standard
Multi-Column Page Display	Standard	Manual	Manual	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Philips 40, 40-cps	Qume 35/50-cps	Qume 40-cps	20 cps, all std Wang prts
Printer Buffer Memory	2KB	Not applicable	Not applicable	64KB
Character Pitch/Spacing	Variable, 3 to 40	10/12/15/PS	10/12/15/PS	10, 12, 15 proportional
Writing Line Width	13" or 26"	13.1"	26.30"	13.2"
Carriage Paper Width	15" or 28"	15.0"	28.50"	11.5"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Standard	Standard	Standard	Via interword space
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard/background	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	With document	With document	With document	With document
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Display prompts and cues	Standard	Standard	Standard
Menus and Prompts	Prompts only	Menu bypass	Menu bypass	Both
Forms Input	Manual	Optional	Optional	Manual
Control Character Printout	Standard	None	None	None
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	5 documents	Unlimited	Unlimited	120
Prioritizing	None	Standard	Standard	Standard
System Status Reporting	Standard	Standard	Standard	Via index entries
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Title/ref. no./page no.	Standard	Standard	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	Standard	None	None	None
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	5	Two	Two	Three
Keylock	None	None	None	None
Other	—	None	None	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Standard; operator controlled	Scan with adjustable hot zone	Scan with adjustable hot zone	Sys scan before print; hot zone
Auto Input Underlining	Continuous	Word, continuous	Word, continuous	Continuous
Auto Centering	Page/col/graphics	On page, w/in column	On page, w/in column	on pg, between margins
REMARKS & OTHER FEATURES		¹ One per keyboard Automatic redlining, paragraph numbers, footnote handling		

Philips Info. Sys. Inc.	Syntrex	Syntrex	Wang	COMPANY
2002; 2004; 2005	Gemini	Polaris	OIS 50	MODEL
Standard Standard Standard Standard Standard	Standard Standard on output Alternating left/right W/in document Standard	Standard Standard on output Alternating left/right W/in document Standard	Standard Standard, during output Standard I None Semi-manual	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Para assy/stored & ext.; assembled and merged w/kybd text By page name, character string, cursor position	Para assembly stored using multicycle user- defined select criteria 66-character string, page no., doc title, key word search	Para assembly stored using multicycle operator defined select criteria 66-character string, page no., document title, key word search	Standard By document page number, character string	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
C, W, L, P, S, or speci- fied block 80 char. string/94 strings or to 1,000 char.; simultaneous selective; foreground Standard Standard Standard Standard Standard Screen or disk backgrnd, 9 levels; ascd or dscd 25 levels, background	C, W, S, Page, Para, Doc Standard—66 characters 1 string per pass, automatic or selective, foreground Standard Optional Standard Standard Standard Optional Optional	C, W, S, page, para, doc. Standard—66 chars., 1 string per pass, auto or selective, foreground Standard Optional Standard Standard Standard Optional None	C, W, L, S, P, doc. 30 character string, auto, or selective Standard Standard Sys. scan/oper. decision Standard Manual Standard, two modes Opt., foreground	Delete Capability Global Search & Replace Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort Auto File Select
Standard Not available	Standard Optional	Standard Optional	Standard Optional	Term Dictionary/Glossary Spelling Verification
To be announced TTY (50 to 9600 bps) VT52 (300 to 9600 bps) 2741 (134.5-300 bps) ¹ Col. verification, 5 function plus full function Standard	Optional ASCII, bisync, 3780/ 2780, Syntrex-to-Syntrex; to 9600 bps; 3270 Column and row verifica- tion; add, subtract, mult., div., perc. Optional, coded function	Optional ASCII, bisync, 3780/ 2780, Syn. to Syn.; to 9600 bps; 3270/BSC Column, row verification; add, sub., mult., div., perc. Optional, coded function	Optional Bisync/Async, 2780/3780 TTY, 2741, 3270, TTE, SNA, 3274 Standard, full-function Via glossary	COMMUNICATIONS Availability Protocols & Speed ARITHMETIC CAPABILITY
Standard CP/M Not available Basic Microsoft™ Records process., sort math, keystroke memory Forms tractor, dual sheet feeder, envelope feeder, acoustical cover, Qume 45/55-cps printer	Standard CP/M-86 With CP/M-86 With CP/M-86 With CP/M-86 Communications, shared device, clustered sys- tem, sheet feeder, OCR, draft printer, wide track printer	Standard CP/M-86 With CP/M-86 With CP/M-86 With CP/M-86 Communications, shared device, clustered system, sheet feeder, OCR, draft printer, wide track printer	Standard CP/M optional Basic, optional None Readability 20, 35, 120, 180 cps prntrs, wide, twin-track or dual speed laser prn- trs, WISE, tape cartridge back-up, tape drive	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software PERIPHERALS
October 1982 —	August 1981 USA	August 1981 USA	June 1983 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture PRICING & TERMS Purchase
\$9400 /2002; \$12,400/ 2004; \$15,400/2005 ³ —	\$39,090 ¹ \$1,540/mo. (1-yr.) ¹ \$3,495/mo. (1-yr.) ¹	\$19,090 \$752/mo. (1 yr. min.) \$1,707/mo. (2 yrs.)	\$6,000 to \$8,700 \$390 to \$536 None	Rental Lease
\$2000/yr. (both models)	\$270/mo.	\$190/mo.	\$65 to \$83	Maintenance
90 days, parts & labor	90 days parts, labor, trng.	90 days parts, labor, training	90 days	Warranty & Support
¹ 3276, Model 2 Miconet ² Titlepro, scientific/ math symbols, dual font; prof. workstation. GSA pricing avail. All soft- ware avail. bilingual/ European lang., spelling, dual font ³ Controller only	¹ Includes Gemini, Aquarius II, archiving workstation w/Aries or Olivetti printer, file cabinet			REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	Wang	Wang	Wang	Wang
MODEL	OIS 60	OIS 105-1	OIS 115-2	OIS 140
SYSTEM CONFIGURATION				
System CPU/Controller	Z80 microprocessors	Z80 microprocessors	Z80 microprocessors	Z80 microprocessors
CPU/Controller Memory	64KB/CPU, 64KB/Wkstn.	64KB/CPU, 32KB/wkstn.	64KB/CPU, 32KB/wkstn.	64KB/CPU, 32KB wkstn.
System Storage Media	Disk, diskette	Disk, diskette	Disk, diskette	Disk, diskette
Storage Capacity	33.5MB disk	4.2MB/disk ¹	4.2-32MB/disk ¹	26.8, 53.6, 80.4MB/disk ¹
File Organization	By doc. and page number	By doc. & page	By doc. & page	By doc. & page
Max. No. Keystations Supported	8	2 ²	8 I/O devices ²	24
Max. No. Printers Supported	8 I/O devices total	2 ²	8 I/O devices ²	32 I/O devices
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT
Color	Green on gray	Green on dark ³	Green on dark ³	Green on gray or b&w
Display Buffer Memory	8KB characters	8KB characters	8KB characters	8KB characters
Format & Capacity	24 lines by 80 char.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	7 x 8 dot matrix	8 x 8 dot matrix	8 x 8 dot matrix	8 x 10 dot matrix
Cursor Positioning	L, R, U, D, H, rev	L, R, U, D, H, Rev. home	L, R, U, D, H, Rev. home	L, R, U, D, H, Rev. home
Vertical Scrolling	By partial page	By partial page	By partial page	By partial page
Horizontal Scrolling	Segmented	Segmented	Segmented	Segmented
Display Highlighting	Bold	Bold	Bold	Bold
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	Fixed	None	None	Fixed, proportional
Line Spacing Display	None	None	None	None
Line Justify Display	None	None	None	None
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Standard	Codes only	Codes only	Codes only
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	20 cps, all std Wang prts	Wang 20 or 35-cps ⁴	Wang 35-cps daisywheel ⁴	Wang 35-cps daisywheel ²
Printer Buffer Memory	64KB	16KB	16KB	16KB
Character Pitch/Spacing	10, 12, 15 proportional	10/12/15/proportional	10/12/15/proportional	10/12/15/proportional
Writing Line Width	13.2"	13.2"	13.2"	13.2"
Carriage Paper Width	11.5"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Via interword space	Via interword space	Via interword space	Via interword space
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	With document	W/document	W/document	W/document
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Both	Both	Both	Both
Forms Input	Manual	Manual	Manual	Manual
Control Character Printout	None	None	None	None
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	120	120	120	120
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Via index entries	Via index entries	Via index entries	Via index entries
Automatic Indexing	Standard	Standard	Standard	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	None	None	None	None
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	Three	Three	Three	Three
Keylock	None	None	None	None
Other	None	None	None	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	Sys scan before print; hot zone	System scan before print; hot zone, algorithm	System scan before print; hot zone, algorithm	System scan before print; hot zone and algorithm
Auto Input Underlining	Continuous	Continuous	Continuous	Continuous
Auto Centering	On pg, between margins	On page	On page	On page
REMARKS & OTHER FEATURES		¹ 300KB chars./diskette ² Maximum 4 I/O devices ³ Or black & white ⁴ 120, 200 cps or 425 lpm printer; twin-track or wide-track printer; image printer; 60/192-cps dual-speed printer	¹ 300KB chars./diskette ² Maximum 8 I/O devices ³ Or black & white ⁴ 120, 200 cps or 425 lpm printer; twin-track or wide-track printer; image printer; 60/192-cps dual-speed printer	¹ 300KB chars./diskette ² 55, 120, 200 cps and 425 lpm printers; wide-track and twin-track printer; image printer; 60/192-cps dual-speed printer

Wang	Wang	Wang	Wang	COMPANY
OIS 60	OIS 105-1	OIS 115-2	OIS 140	MODEL
Standard Standard, during output Standard I None Semi-manual	Standard Standard, during output Standard Standard Standard	Standard Standard, during output Standard Standard Standard	Standard Standard, during output Standard None Manual	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Stored text assembled & merged with keyboarded text	Stored text assembled & merged with keyboarded text	Standard	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By document page number, character string	By document, page number, character string (120 chars.)	By document, page number, character string (120 chars.)	By document, page number, character string (120 chars.)	Search Capability
C, W, L, S, P, doc.	C, W, L, S, P	C, W, L, S, P	C, W, L, S, P, doc	Delete Capability
30 character string, auto, or selective	120-char. string, auto or selective	120-char. string, auto or selective	30-char. string, auto or selective	Global Search & Replace
Standard Standard Sys scan/oper. decision Standard Manual Standard, two modes	Standard Standard Sys. scan, oper. decision Standard Manual Standard, 3 modes	Standard Standard Sys. scan, oper. decision Standard Manual Standard, 3 modes	Standard Standard Sys. scan, oper. decision Standard Manual Standard, 2 modes	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Opt., foreground	Optional, foreground	Optional, foreground	Optional, foreground	Auto File Select
Standard Optional	Standard Optional	Standard Optional	Standard Optional	Term Dictionary/Glossary Spelling Verification
Optional Bisync/Async, 2780/3780 TTY, 2741, 3270, TTE, SNA, 3274 Standard, full-function	Optional Bisync. or async. 2780/3780, TTY, 2741 to 4800 bps ¹ Standard, full-function	Optional Bisync. or async. 2780/3780, TTY, 2741 to 4800 bps ¹ Standard, full-function	Optional Bisync or async 2780/3780, TTY, 2741 to 4800 bps ¹ Standard, full-function	COMMUNICATIONS Availability Protocols & Speed
Via glossary	Via glossary	Via glossary	Via glossary	ARITHMETIC CAPABILITY
Standard CP/M optional Basic, optional None Readability	Standard CP/M optional Basic, optional None Available	Standard CP/M optional Basic, optional None Available	Standard CP/M optional Basic, optional None Spell,SCI	KEYSTROKE STORAGE
20, 35, 120, 180 cps pntrs, wide, twin-track or dual speed laser pntrs, WISE, tape cartridge back-up, tape drive	Image ptr; 20, 35, 120, 180, or 200 cps; wide- & twin-track ptr; 32-, 48-, 64KB ws.; photocomp; ppr. tape; OCR; mag card rdr. ²	Image ptr; 20, 35, 120, 180, or 200 cps; wide- & twin-track ptr; 32-, 48-, 64KB ws.; photocomp; ppr. tape; OCR; mag card rdr. ²	20, 35, 55, 120, or 180 cps; wide- or twin-track ptr, wrkstn. opts ² , photocomp, ppr. tape, 425 lpm pntr, OCR ²	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
June 1983 USA	December 1980 USA	December 1980 USA	May 1979 USA	PERIPHERALS
\$9,000 to \$11,700	\$6,600 ³	\$11,400 ³	\$26,000 ³	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
\$720 to \$866	\$420/mo. (1-yr.) ³	\$660/mo. (1-yr.) ³	\$1,457 (1-yr.) ³	PRICING & TERMS Purchase
None	None	None	None	Rental
\$127 to \$145	\$95/mo. ³	\$146/mo. ³	\$271/mo. ³	Lease
90 days	90 days	90 days	90 days	Maintenance
	¹ Bisync. 2780/3780 and 3270; to 9600 bps ² WISE; Mailway; spelling; 425 lpm printer ³ Includes CPU, 4.2MB disk, diskette	¹ Bisync. 2780/3780 and 3270; to 9600 bps ² WISE; Mailway; spelling; 425 lpm printer ³ Includes CPU, 8.4MB disk, diskette	¹ Bisync. 2780/3780 and 3270; to 9600 bps ² WISE; Mailway; spelling; Charter; WP Plus ³ Includes CPU, 80.4MB disk, diskette. WangNet Interface available for \$700.	Warranty & Support
				REMARKS & OTHER FEATURES

Multi-Terminal Word Processing Systems

COMPANY	Wang	Wang	Wang	Wordplex
MODEL	OIS 145	Alliance 250-1	Alliance 250-2	Wordplex 7-80
SYSTEM CONFIGURATION				
System CPU/Controller	Z80	Z80	Z80	4 x Z80
CPU/Controller Memory	64KB/CPU, 32KB wkstn.	128KB CPU, 64KB wkstn.	128KB CPU, 64KB wkstn	128KB
System Storage Media	Disk, diskette	Disk, diskette	Disk/diskette	Disk
Storage Capacity	10, 275MB/disk ¹	To 4-80 or 275 MB	275MB ¹	80MB ¹
File Organization	By doc. & page	By document, page and file		By doc. & page number
Max. No. Keystations Supported	24	24	24	24
Max. No. Printers Supported	32 I/O devices	To 32 I/O devices	Up to 32 I/O devices	12
DISPLAY FEATURES				
Screen Size & Type	12" diagonal CRT	12" diagonal CRT	12" diagonal CRT	15" diagonal CRT
Color	Green on gray or b&w	Green on gray or b&w	White on green/b&w	Green on gray
Display Buffer Memory	8KB characters	8KB characters	8KB characters	7680 characters
Format & Capacity	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.	24 lines by 80 chars.
Total Characters	1920 characters	1920 characters	1920 characters	1920 characters
Character Generation	8 x 10 dot matrix	8 x 10 dot matrix	8 x 10 dot matrix	7 x 11 dot matrix
Cursor Positioning	L, R, U, D, H, Rev. home	L, R, U, D, H, rev.	L, R, U, D, H, rev.	L, R, U, D, H
Vertical Scrolling	By partial page	Partial page	Partial page	By line, paragraph, page
Horizontal Scrolling	Segmented	Segmented, virtual	Segmented, virtual	Segmented, virtual
Display Highlighting	Bold	Bold	Bold	Bold, reverse none
Character Size Control	None	None	None	None
Character Pitch Display	None	None	None	None
Character Spacing Display	Fixed, proportional	Fixed, proportional	Fixed, proportional	None
Line Spacing Display	None	None	None	1, 2
Line Justify Display	None	None	None	Standard
Underscore Display	Standard	Standard	Standard	Standard
Sub/Superscript Display	Codes only	Codes only	Codes only	Codes only
Multi-Column Page Display	Standard	Standard	Standard	Standard
Stored Form Recall/Display	Standard	Standard	Standard	Standard
Control Code Display	Standard	Standard	Standard	Standard
Format Statement Display	Standard	Standard	Standard	Standard
PRINTER FEATURES				
Printer Type & Speed	Wang 35 cps-daisywheel ²	35 cps-Wang ¹	35-cps Wang ¹	35 or 45-cps daisywheel
Printer Buffer Memory	16KB	64KB	64KB	Standard
Character Pitch/Spacing	10/12/15/proportional	10/12/15/proportional	10/12/15/proportional	10/12/15
Writing Line Width	13.2"	13.2"	13.2"	13"
Carriage Paper Width	15"	15"	15"	15"
First Line Forms Advance	Standard	Standard	Standard	Standard
End-of-Page Stop	Standard	Standard	Standard	Standard
Justified Printout	Via interword space	Via interword space	Via interword space	Standard
Sub/Superscript Printout	Standard	Standard	Standard	Standard
Non-Adjust Printout	Standard	Standard	Standard	Standard
Bidirectional Printout	Standard	Standard	Standard	Standard
Simultaneous Input/Output	Standard	Standard	Standard	Standard
GENERAL FEATURES				
Stored Format	W/document	W/document	W/document	W/doc., in separate doc.
Default Format	Standard	Standard	Standard	Standard
Stored Multiple Formats	Standard	Standard	Standard	Standard
Machine Dialog	Standard	Standard	Standard	Standard
Menus and Prompts	Both	Both	Both	Menu bypass
Forms Input	Manual	Manual	Manual	Automatic
Control Character Printout	None	None	None	None
Printout Queuing	Standard	Standard	Standard	Standard
No. of Pages/Documents	120	120	120	252 pages/document
Prioritizing	Standard	Standard	Standard	Standard
System Status Reporting	Via index entries	Via index entries	Via index entries	Standard
Automatic Indexing	Standard	Standard, words in text	Standard, words in text	Standard
Docu. Title/Docu. History	Standard	Standard	Standard	Standard
System Security	Standard	Standard	Standard	Standard
Operator log-on password	None	Standard	Standard	Standard
Document access password	Standard	Standard	Standard	Standard
No. of priority levels	Three	Four	Four	Two
Keylock	None	None	None	On CPU
Other	None	None	None	None
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard	Standard	Standard	Standard
Hyphenation	System scan before print; hot zone and algorithm	Sys. scan before print; hot zone & algorithm	Sys. scan before print, hot zone, & algorithm	Scan w/operator decision
Auto Input Underlining	Continuous	Continuous	Continuous	Continuous
Auto Centering	On page	On page	On page	Within margins
REMARKS & OTHER FEATURES				
	¹ 300KB chars./diskette ² 120, 200 cps and 425 lpm printers; wide-track and twin-track printers; image printer; 60/192-cps dual-speed printer; 55-cps printer	¹ 300KB char. disk.; 180-cps printer; wide track; twin track; 60 & 192 dual speed printer; 12 page/min. laser printer; image transfer system.	¹ 300KB char. disk.; 180-cps printer; wide-track; twin-track; 60 & 192 dual speed printer; 12 page/min. laser printer; image transfer system	¹ Up to four 80MB disks; 300MB optional ² Information not updated

Multi-Terminal Word Processing Systems

WP11-040-729
Word Processing Systems

Wang	Wang	Wang	Wordplex	COMPANY
OIS 145	Alliance 250-1	Alliance 250-2	Wordplex 7-80	MODEL
Standard Standard, during output Standard None Manual	Standard Standard, during output Standard None Manual	Standard Standard, during output Standard None Manual	Standard Standard, during output None None Standard	TEXT INPUT (cont'd) Variable Line Spacing Auto Page Numbering Auto Headers/Footers Auto Footnote Tie-In Auto Pagination
Standard	Standard	Standard	Stored & keyboarded text assembled as new doc.; docs. combined	TEXT EDIT/MERGE FEATURES Document Assembly/Merge
By document, page number, character string (120 chars.)	By title, char. string, author operator, comments, dept., WIT	By title, char. string, author operator, comments, dept., WIT	By doc. name, page number, cursor position, 19-char. string	Search Capability
C, W, L, S, P, doc	C, W, L, S, P, doc	C, W, L, S, P, doc	C, W, L, S, Para, Col, Page	Delete Capability
30-char. string, auto or selective	30 char. string; auto or selective	30 char. string; auto. or selective	One 19-char. string; auto; foreground	Global Search & Replace
Standard Standard Sys. scan, oper. decision Standard Manual Standard, 2 modes	Standard Standard Sys. scan, oper. decision Standard Manual Standard, 2 modes	Standard Standard Sys. scan, oper. decision Standard Manual Standard, 2 modes	Standard Standard Standard Standard, during output None Standard	Block Move/Copy Column Move/Delete Auto Repagination Auto Renumbering Auto Widow/Orphan Adjust Auto File Sort
Optional, foreground	Opt. foreground	Opt. foreground	Multiple levels; on output; background	Auto File Select
Standard Optional	Standard Standard	Standard Standard	None None	Term Dictionary/Glossary Spelling Verification
Optional Bisync. or async. 2780/3780 TTY, 2741: to 4800 bps ¹ Standard, full-function	Optional Bisync, async, 2780, 3780, TTF, 3271, WPS, SNA Std. full function	Optional Bisync, async, 2780, 3780, TTF, 3271, WPS, SNA Std. full function	Standard 2780	COMMUNICATIONS Availability Protocols & Speed
Via glossary	Via glossary and key-stroke memory	Via glossary and key-stroke memory	Standard	ARITHMETIC CAPABILITY
Standard CP/M optional Basic (optional) None Spell, SCI	Standard CP/M optional Basic/optional None Vis. mem., time mgmt. ¹	Standard CP/M optional Basic optional None Vis. mem., time mgmt. ¹	None	KEYSTROKE STORAGE
20, 35, 55, 120, and 180 cps; wide- & twin-track ptr, wrkstn. opts ² , photocomp, ppr. tape ² 425 lpm printer	20, 35, 120, 180-cps ptrs; wide-, twin-track or dual speed laser ptrs; WISE; tape cart. back-up; tape drive	20/35/120/180-cps printers wide-track, twin-track, dual speed laser printer, ITS, WISE, tape crtge back-up, tape dr.	None None None None None	EDP CAPABILITY Multiprogramming Micro operating systems Compilers Interpreters Applications Software
September 1979 USA	May 1982 USA	May 1982 USA	Wordplex 80-3; 300-600 lpm printers; OCR; RS-232 devices 35/45-cps printers	PERIPHERALS
\$38,000 ³	\$33,000 ²	\$40,000 ²	May 1976 USA	BACKGROUND INFORMATION First Delivery Date Country of Manufacture
\$2,090/mo. (1-yr.) ³	\$1,786/mo(1-yr.) ²	\$1,819/mo (1-yr.) ²	Depends on configuration	PRICING & TERMS Purchase
None	None	None	Available on request	Rental
\$388/mo. ³	\$363/mo ²	\$368/mo ²	Available on request	Lease
90 days	90 days	90 days	Depends on configuration	Maintenance
¹ Bisync. 2780/3780 & 3270: to 9600 bps ² OCR; WISE; Mailway; spelling; Charter; WP Plus ³ Includes CPU, 275MB disk, diskette. WangNet Interface available for \$700.	¹ Voice; electronic messaging ² Includes 128KB memory; 32 ports; New Alliance operating system software and 80.4MB fixed/removable drive. WangNet Interface available for \$700.	¹ Multiplan WP Plus; Charter; voice; electronic messaging ² Includes 128KB Memory; New Alliance operating system software and 275MB removable drive. WangNet Interface available for \$700.	Available	Warranty & Support
				REMARKS & OTHER FEATURES

COMPANY	Wordplex			
MODEL	Wordplex 80-4			
SYSTEM CONFIGURATION				
System CPU/Controller	3 x Z80			
CPU/Controller Memory	128KB			
System Storage Media	Disk, diskette			
Storage Capacity	10MB disk, 600KB disk.			
File Organization	By doc. & page number			
Max. No. Keystations Supported	3			
Max. No. Printers Supported	3			
DISPLAY FEATURES				
Screen Size & Type	15" diagonal CRT			
Color	Green on gray			
Display Buffer Memory	7680 characters			
Format & Capacity	25 lines by 80 chars.			
Total Characters	2000 characters			
Character Generation	7 x 11 dot matrix			
Cursor Positioning	L, R, U, D, H			
Vertical Scrolling	By line, paragraph, page			
Horizontal Scrolling	Segmented, virtual			
Display Highlighting	Bold, reverse			
Character Size Control	None			
Character Pitch Display	None			
Character Spacing Display	None			
Line Spacing Display	1, 2			
Line Justify Display	Standard			
Underscore Display	Standard			
Sub/Superscript Display	Codes only			
Multi-Column Page Display	Standard			
Stored Form Recall/Display	Standard			
Control Code Display	Standard			
Format Statement Display	Standard			
PRINTER FEATURES				
Printer Type & Speed	35 or 45-cps daisywheel			
Printer Buffer Memory	Standard			
Character Pitch/Spacing	10/12/15			
Writing Line Width	13"			
Carriage Paper Width	15"			
First Line Forms Advance	Standard			
End-of-Page Stop	Standard			
Justified Printout	Standard			
Sub/Superscript Printout	Standard			
Non-Adjust Printout	Standard			
Bidirectional Printout	Standard			
Simultaneous Input/Output	Standard			
GENERAL FEATURES				
Stored Format	W/doc., in separate doc.			
Default Format	Standard			
Stored Multiple Formats	Standard			
Machine Dialog	Standard			
Menus and Prompts	Menu bypass			
Forms Input	Automatic			
Control Character Printout	None			
Printout Queuing	Standard			
No. of Pages/Documents	252 pages/document			
Prioritizing	Standard			
System Status Reporting	Standard			
Automatic Indexing	Standard			
Docu. Title/Docu. History	Standard			
System Security	None			
Operator log-on password	None			
Document access password	None			
No. of priority levels	None			
Keylock	None			
Other	None			
TEXT INPUT FEATURES				
Auto Decimal Alignment	Standard			
Hyphenation	Scan w/operator decision			
Auto Input Underlining	Continuous			
Auto Centering	Within margins			
REMARKS & OTHER FEATURES	Dual ground configuration allows two jobs concurrently in each slave terminal *Information not updated			

Wordplex				COMPANY
Wordplex 80-4				MODEL
Standard				TEXT INPUT (cont'd)
Standard, during output				Variable Line Spacing
None				Auto Page Numbering
None				Auto Headers/Footers
Standard				Auto Footnote Tie-In
				Auto Pagination
Stored & keyboarded text assembled as new doc.; docs. combined				TEXT EDIT/MERGE FEATURES
By doc. name, page number, cursor position, 19-char. string				Document Assembly/Merge
C, W, L, S, Para, Col, Page				Search Capability
One 19-char. string; auto; foreground				Delete Capability
				Global Search & Replace
Standard				Block Move/Copy
Standard				Column Move/Delete
Standard				Auto Repagination
Standard, during output				Auto Renumbering
None				Auto Widow/Orphan Adjust
Standard				Auto File Sort
Multiple levels; on output; background				Auto File Select
Optional				Term Dictionary/Glossary
Optional				Spelling Verification
Standard				COMMUNICATIONS
2780/3780, 3270, TTY, Prestel, RS-232-C				Availability
4 function, percentages, verification, multiple registers				Protocols & Speed
Standard				ARITHMETIC CAPABILITY
None				KEYSTROKE STORAGE
CP/M optional ¹				EDP CAPABILITY
None				Multiprogramming
Basic				Micro operating systems
ASAP, SSORT				Compilers
CP/M applications				Interpreters
Wordplex 80-81, 80-1, 8-3, 35/45-cps printer, RS-232 devices				Applications Software
				PERIPHERALS
December 1982				BACKGROUND INFORMATION
USA				First Delivery Date
\$11,500: control sta.				Country of Manufacture
\$4,285: workstation				PRICING & TERMS
Available on request				Purchase
Available on request				Rental
Depends on configuration				Lease
Available				Maintenance
¹ CP/M option available in standalone mode only				Warranty & Support
				REMARKS & OTHER FEATURES

Objective, timely, accurate, comprehensive reports and directories on products and technologies available from today's data processing and office automation industries.

Datapro Information Services

This Feature Report is a small example of the wealth of useful information that can be found in Datapro Information Service Reports and Directories. Each Datapro Information Service includes looseleaf reference volumes containing hundreds of detailed product analysis, user evaluations, comparisons and descriptions; as well as complete vendor directories and profiles, technology reports, tutorials and more. New product profile Supplements are sent to you monthly or bimonthly to keep your service up-to-date with changing prices and specifications.

A Telephone/Telex Inquiry Service is included with the subscription to make available to you Datapro's in-house staff of consultants.

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EDP Systems

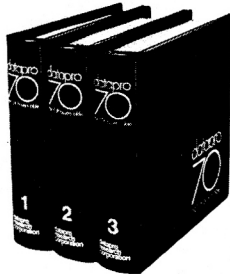
THE EDP BUYER'S BIBLE

DATAPRO 70

The world's most popular EDP information service. Used by EDP professionals in nearly 10,000 installations worldwide. The first complete, comprehensive reference service describing the broad base of EDP hardware, software, services and suppliers.

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| Terminals | • Directory of Suppliers |
| Data Entry | • Product Comparison Tables |
| Graphics I/O | • User Ratings |
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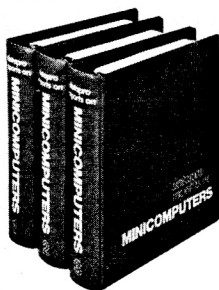


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Positive reports and commentary on all aspects of the dynamic minicomputer, microcomputer, and microprocessor industries. With the continued and rapid evolution of micro-mini technology, this is a vital tool for EDP professionals in every segment of the industry.

- | | |
|----------------------|-----------------------------|
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| Super Minis | • User Ratings |
| Microcomputers | • In-depth Product Profiles |
| Personal Computers | • Mininews Newsletters |
| Magnetic Tape Units | |
| Software | |
| Directory of Vendors | |

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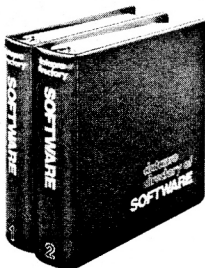


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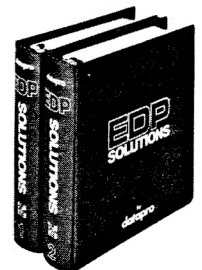


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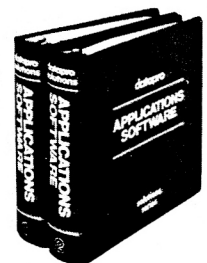


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| • "Make or Buy" Trade Offs | • User Ratings |
| • Selection and Acquisition of Commercially Available Packages | • Directories of Commercial Packages, Vendors and Suppliers, User Groups, Trade Associations, and Consultants |
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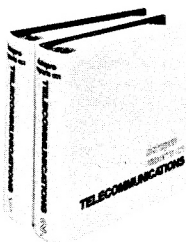


- Glossary
- Basic Concepts
- Standards
- Network Architecture
- Local Area Networks
- Communications Processors
- Communications Switches
- Communications Software
- Distributed Processing Systems
- Intelligent Terminals
- Display Terminals
- Teleprinters
- Transmission Facilities
- Modems
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- Telecommunications Management Concepts
- Telephone Systems
- Telephone Management Systems
- Automatic Call Distribution Systems
- Auxiliary Telephone Equipment
- Facsimile
- Telecommunications Software
- Communications Facilities Concepts, Planning, and Design
- Commercially Available Switched and Non-Switched Facilities
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- Directories of Suppliers and Consultants
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- System Design
- Selection and Acquisition
- Installation and Maintenance
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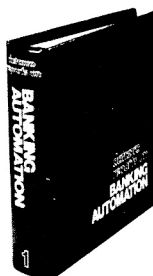
- General Index
- Applications Index
- Database Index
- Company Index
- Vendor Office Locations (Alphabetically and geographically)
- User's Guide
- Inquiry Service
- On-line Services Reports
- Company Profiles
- Vendor Profiles
- On-line Databases
- Vendor Directories
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- Automated Tellers
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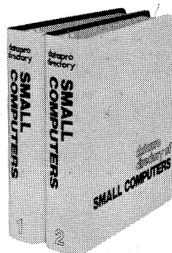
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This directory service provides more than 200 computer system descriptions to help you identify cost-effective small computer systems by company specifications and prices. Each description also includes listings of related peripherals, software, and services. Make your buying decisions based on actual product user ratings and on the latest product information.

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- Company Profiles
- Applications Index
- Computer Concepts, Advice, Guidelines, and Glossary of Terms
- Directories of Vendors, Sales Outlets, and User Groups, Clubs, and Associations
- User Ratings
- *Small Computer News* Newsletters

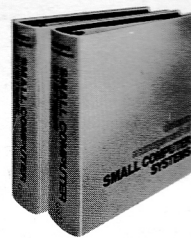
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- User Ratings



- Glossary
- Newsletters

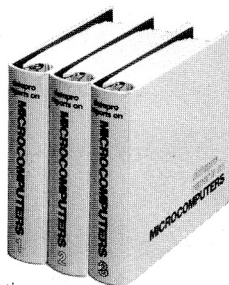
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- Printers
- Expansion Cards
- Mass Storage
- Software
- Communications
- Price Lists
- Management Summaries
- Detailed Characteristics
- User Reaction Section
- Advantages and Restrictions
- Competitive Position
- Side-by-Side Product Comparisons
- *Microcomputer News* Newsletters

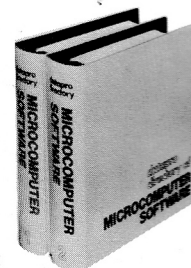
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- Software Price Lists
- User Ratings
- Vendor Profiles
- Applications Index
- Product Name Index
- Vendor/Product Index
- Computer System Index
- Reports on How to Select, Acquire and Evaluate Software
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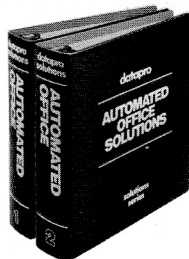
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- The Transition to Automation
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- Equipment Evaluation and Selection
- Financial/Legal Management
- Personnel Management
- Facilities Management
- Operations Management
- Systems Management
- Automated Office Software
- Consultants and Supplies
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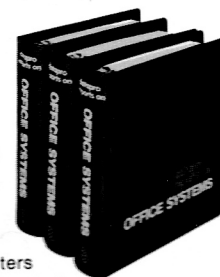


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- Dictation
- Copiers & Duplicators
- Printing & Composition
- Mailing & Addressing
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- Audio/Visual Products
- Office Facilities
- Forms & Supplies
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- Can be used to compare systems when making a purchase decision.
- Can be used as a reference tool to keep pace with changes in the marketplace.
- Can be used as a training tool.
- Contains overviews of various technology areas as well as product comparison tables, in-depth reports on individual products and user ratings.

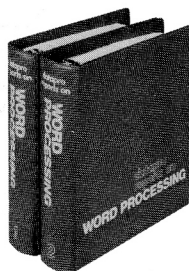
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Practical information and guidelines to help you maximize the benefits offered by the newest WP systems, products, and services. Product comparison tables, in-depth product profiles, and user ratings to help you minimize cost and risk in WP planning, evaluation, selection and implementation.

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- Time-Shared Word Processing Services
- Word Processing Software
- Auxiliary Equipment and Systems
- Dictation Systems
- Industry Applications
- Electronic Typewriters
- Integrated Office Systems
- Communicating Word Processors and Electronic Mail
- Composition Systems
- *Word Processing News* Newsletters



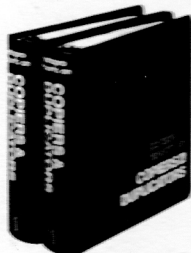
- Company Directories and Profiles
- Word Processing Supplies

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- Concepts and Planning
- Copiers
- Duplicators
- Copy/Duplicating Systems
- Electronic Copiers and Facsimile
- Company Directories and Profiles
- Auxiliary Equipment & Systems
- Glossary and Standards
- *Office Copier News* Newsletters



- Copier/Duplicator Supplies

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